

FOR

Modern Lighting



PITTSBURGH REFLECTOR COMPANY

PERMALECTORS



TWO decades of manufacturing experience and engineering research form the background for Permaflexors, the modern word for good lighting. In 1916, after much experimental work, we developed a process for coating silvered glass with copper. This process enabled us to absolutely guarantee Permaflexors against weaknesses common to other silvered glass reflectors.

Today, hundreds of thousands of Permaflexors have been in service for ten, fifteen and twenty years—not one out of ten thousand has been reported to us as having the silvered reflecting surface darkened, or the backing crack, check or peel.

The Permaflexor line of silvered glass reflectors includes more than 70 designs—a correctly shaped unit for practically every need in the lighting of show windows, cove lighting, direct and indirect lighting, flood lighting and color lighting. There is scarcely any lighting problem which Permaflexors will not help to solve.

A COMPLETE LIGHTING SERVICE

We want all users of Pittsburgh Permaflexors to get excellent service from the Permaflexors they purchase from us. A glance at the following pages of this catalog will indicate the great variety of reflectors and complete lighting units, we have for various lighting conditions. We realize that it would be almost an impossibility for our customers to be able to select the Permaflexor best suited for a particular lighting condition. Having designed and produced the line, our engineers have a thorough knowledge of the

proper lighting applications for the various units.

For this reason we offer the services of our engineering department to our customers at no extra cost. When you need lighting, consult our engineering department at Pittsburgh, or any of our field representatives all of whom have a thorough knowledge of lighting needs. Our trained men will make certain that you have the correct Permaflexor for your particular requirements. Do not hesitate to make use of this service.



PITTSBURGH REFLECTOR COMPANY
PITTSBURGH, PA.

FOR SALES OFFICES—SEE BACK COVER

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ARRANGED ACCORDING TO SERVICE CONDITIONS

LIGHTING UNITS

SHOW WINDOW LIGHTING 11-13

The correct lighting of show windows has a marked effect on sales displays. The Permaflexor units for show window lighting are designed for all types of show windows from high shallow windows to wide deep windows and provide the correct illumination for all conditions.

INTERIOR FLOOD LIGHTING 14

Intended as an auxiliary to regular window lighting equipment Permaflexor Interior Floods distribute a broad beam of light with a less intense beam center than obtained with Spots.

INTERIOR SPOT LIGHTING 15

Permaflexor Interior Spots provide an effective means of high-lighting with clear or colored light, any portion of the window display on which the display man wishes to focus the attention of the customers. Interior Spots are auxiliary window lighting equipment and are **not intended as the sole source** of illumination.

COVE LIGHTING 16-17

Among the Permaflexors used for cove lighting are the P Type which are designed for use with lamps in the horizontal position and find their greatest use for indirect lighting in coves. They are also used in shallow indirect lighting bowls employing a number of lamps radiating horizontally from a center body carrying the sockets.

INDUSTRIAL LIGHTING 18

Permaflexor Industrial Lighting Units are especially designed to meet exceptional service conditions such as excessive dust, high mounting, etc.

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Particularly adapted for high intensity illumination on counters or show cases with diminished intensity in the aisles. Exceptionally good for locations having low ceiling heights, where a surface mounted lighting unit constitutes an obstruction.

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THEATRE LIGHTING EQUIPMENT 26

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Permaflexors shown on these pages may be used with spot or flood lights, for direct lighting service, cove lighting, wall case lighting and many other requirements.

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TYPICAL LIGHTING PROBLEMS

Fundamentals of Good Lighting

Good lighting, regardless of the job, requires just five things:

- (1) Proper size and type of lamp
- (2) Correct location and spacing
- (3) Good reflectors
- (4) Correct design
- (5) Correct installation

It is the purpose of this catalog to suggest the correct answer to these questions, as to as wide a variety of lighting problems as may be possible. However, we realize that frequently requirements create problems which are not covered here. Where this is the case our engineering department will be glad to help solve your problem.

Approximate Absorption of Reflecting Surfaces

	Absorption Loss
Polished silver, unprotected, new (darkens rapidly)	5%
Silver surface, plated on glass.....	8%
Silver plated glass.....	10%
Silver surface lacquered, New	25%
Silver surface, lacquered, Old , as high as....	65%
Nickel, freshly polished (tarnishes rapidly)...	40%
Common aluminum and alloys, more than....	40%
Stainless steel, more than.....	60%

From this tabulated data—the particular efficiency

and adaptability of silver-plated glass is established. But it is not sufficient to select any silver-plated glass reflector. Unless the silver-plating be properly protected, the silvered reflecting surface will gradually deteriorate, until it has no more value than aluminum, stainless steel, or other similar surfaces.

There is one silvered glass reflector which does stay bright—the reflecting surface of which does not discolor.

Permafectors stay bright—at the end of ten, fifteen, twenty-five or thirty years, you will find the reflecting surface of Permafectors just as bright, just as efficient, as when first placed in service.

A MODERN FOOD STORE

The Problem—

A little over a year ago Strickland's, at Oak Park, Illinois, decided to modernize their store. Situated in the midst of many ultra-modern and well-designed stores, most of which were branches of some of Chicago's smart establishments, Strickland's while in no sense old-fashioned or obsolete, was not exactly in keeping with its new surroundings. The Store Engineering Company, of Chicago, were engaged to plan this new store and were given a free hand. Special attention was given to lighting.

The Solution—

The general lighting of the store is produced by the indirect method (see illustration). A metal trough, painted on the outside to match the interior color scheme, is suspended from the ceiling, running the entire length of the store. Installed within the trough are fifty-six Pittsburgh Permafectors No. P-76 (see page 16), mounted on Pittsburgh "Easy-to-Install" Conduit No. 2-A (see page 35), with openings spaced on 12 in. centers and equipped with Angle Sockets No. 3 and 2 1/4" Form "L" Holders (see page 35).

The Permafectors are equipped with 100-Watt lamps, producing a fine, soft, evenly distributed illumination throughout the store, averaging approximately 20 foot-candles intensity.

Located in the right front of the store and extending along the right wall for perhaps twenty-five feet, is the fruit and vegetable department. Auxiliary direct lighting is employed here, to attract attention to a fine display of fruits and vegetables.

Directly above the produce display is a cornice in which are recessed eleven Pittsburgh Permafectors No. 55 (see page 11), fitted with Flush Mounting Rings No. 55 (see page 33), and equipped with Permafectors Concentric Louvres No. FM-55-C (see page 33).

The windows are illuminated by sixteen Pittsburgh Permafectors No. 54 (see page 11), mounted flush in the ceiling, fitted with Flush Mounting Rings No. 54 (see page 33), and equipped with Parallel Louvres No. FM-54 (see page 33).

The results of this installation have attracted considerable attention, in fact Strickland's has been referred to as "The Food Store of Tomorrow."



SOLVED WITH PERMAFLECTORS

A MODERN SCHOOL

The Problem—

The lighting of rural schools has, for years, presented a major problem in most small or medium size communities. Light has usually been uncertain, the sun or oil lamps frequently providing the only illumination. Even in those schools where electric lighting systems have been installed, really efficient illumination is rare. Most children, when they begin school, have normal vision. By the time they reach the Sixth Grade, 9% to 20% have defective vision. Among High School students, 25% to 30% have defective vision. Sunshine throughout the 48 States during the ten school months amounts to only 59% which means that 41% of school lighting must be artificial if satisfactory conditions are to be provided. The present cost per pupil enrolled in elementary and secondary schools in a typical city amounts to only 33 cents—less than one cent per pupil. If the eyesight of children is to be protected, school authorities must be sold on proper lighting.

One instance in which the poor lighting conditions have been successfully remedied is in East Allen Township, Northampton County, Pennsylvania. There are five schools in this township and they all had faulty illumination.

The Solution—

In all of these schools the ceilings are of the wainscoting type rather than plaster, presenting uneven surfaces making the accomplishing of a lighting job doubly hard, but this was remedied to a large extent by the application of white paint. After a number of demonstrations, the school board selected Permaflexor Luminaires No. B-51 (see page 27) equipped with 500 watt lamps. The second illustration at the right shows the new lighting in one of the five schools in this township.

The first picture shows pupils at work under correct lighting, in the "Sight Saving" classroom in Niagara Falls, N. Y., schools.

The Pittsburgh Reflector Company's Engineering Department will gladly cooperate with the architect in the selection of the proper lighting equipment for school installations.



A MODERN AUDITORIUM

The Problem—

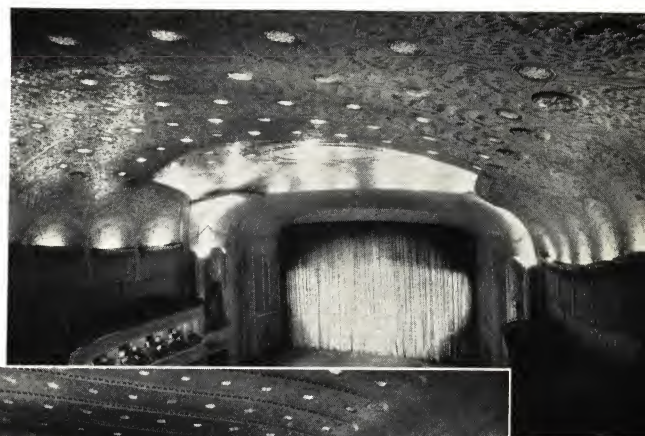
A combination of music and light, the colors and graduations of the latter being scheduled to follow the musical score and to heighten the emotional reaction by visual as well as auditory means and the use of colored light, as an independent decorative medium, stimulated the architects, Walker and Weeks, in the development of the lighting scheme of Severance Hall in Cleveland.

The Solution—

The Main Auditorium lighting is divided into direct and tonal indirect lighting. The direct lighting units one above each of the flower pattern grilles in the ceiling, vary from No. C-500A Permaflexors with 300 watt lamps at the front, to No. I-60's (see page 22) at the rear, with 60 watt lamps. Each of these is mounted on top of a galvanized iron enclosure, 2 ft. 9 in. high and projects its light vertically downward through louvers 9 in. high which permits a beam spread of about 30 degrees and gives a fairly uniform intensity of about 9 foot-candles at seat level. About two-fifths of these units have daylight lamps, and the others, clear lamps, each group separately forming a decorative pattern and separately controlled. The orchestra is lighted by similar units above the ceiling of the "permanent set."

Above the proscenium arch, extending around each side to the light beam, and at a lower level, extending completely around side and rear walls, are coves containing tonal indirect lighting units, in general No. WS-200 Permaflexor Interior Spots with 200 watt lamps and No. 2 Color lites (see page 32) are used.

The "light beam," really a continuous booth extending across above the ceiling, contains, for the present, eight 1000 watt projectors. Eight 1000 watt spots are placed in the center and ends of the balcony rail. These, as well as the spots in the light beam, have four color boomerangs remotely controlled from the light console.



TYPICAL INDUSTRIAL AND A MODERN OFFICE



The Problem—

The Oliver Building was erected about twenty years ago. It is located in the "Golden Triangle" of downtown Pittsburgh and despite its age, today ranks with any of the newer buildings from the standpoint of rentability. Illumination has been a major factor in keeping the offices rented. About fifteen years ago the most efficient office lighting was installed. In 1932, however, the building was again completely refitted and once more takes rank with the best illuminated office buildings. Having found it desirable to change the lighting equipment twice during the past twenty years, the management of the Oliver Building made a careful investigation before deciding on the latest installation. This investigation extended over a period of two years. Several important conclusions determined the decisions reached:

- (1) Tenants were entitled to an average of ten to fifteen foot-candles on the office desks.
- (2) To secure these intensities, higher wattage incandescent lamps were required.
- (3) That the use of higher wattage lamps leads to undesirable glare unless steps are taken to prevent it.
- (4) For the Oliver Building, indirect illumination would be the most economical and efficient means of eliminating glare.
- (5) That indirect illumination would have the advantage of being diffuse, thus softening the shadows and providing more uniform illumination over the desk area.

The Solution—

The results of this exhaustive investigation led to the decision to install specially designed indirect lighting fixtures throughout the building. The fixtures are equipped with individual silvered-glass reflectors made by the Pittsburgh Reflector Company. These new fixtures are so designed that it is possible to double their capacity by merely changing the socket position. This arrangement makes every allowance for further advances in lighting standards.

A MODERN BANK



The Problem—

Like many other places of business and gathering, the seeming first thought in designing the lighting system of a bank used to be the use of one or more massive and ornate chandeliers which presented a glaring mass of electric lamps, but did not afford good illumination. Bank lighting, even today, has been seriously neglected especially in many of the older banks.

The Solution—

The two illustrations at the left, of the Forbes and Murray branch, Peoples Pittsburgh Trust Co., Pittsburgh, Pa., show how modern lighting improves the appearance as well as making for greater efficiency. As a general rule, it is agreed that indirect illumination is best for bank interior lighting. This may take the form of artificial lighting through skylights; indirect lighting from the top of bank cages; indirect lighting from coves, wall urns, pedestals, etc., thus eliminating suspended fixtures; indirect lighting by means of suspended opaque or illuminated bowls; or combination direct-indirect lanterns and similar fixtures. These five methods offer the most practical and efficient balance of the aesthetic and utilitarian. The principal interior lighting for the bank illustrated is from asymmetric reflectors (Permaflexors No. 54) recessed in the window ledges. The exterior is lighted by the use of asymmetric Permaflexors in metal boxes.

Obviously, it is not possible to fully describe the various lighting arrangements which will provide the ultimate in illumination in this limited space; for further details concerning bank or public building lighting, write direct to the main office or any of our representatives listed on the back cover.

COMMERCIAL LIGHTING PROBLEMS

A MODERN FACTORY

The Problem—

The most important tool in any industrial plant is the lighting equipment. Early in 1934 the General Steel Castings Corporation, located at Eddystone, Pa., (see picture at right) decided to relight their plant. After a careful study of the lighting problem, taking into consideration the conditions to be met, it was decided that there was not a standard industrial lighting unit on the market that would meet the requirements.

The old lighting consisted of spun aluminum reflectors, mounted on 25 ft. x 22 ft. centers at a height of 50 ft., above traveling cranes. The lamp wattages varied from 500 watts to 1000 watts, producing a lighting intensity of about one foot-candle maximum, and in most cases from $\frac{1}{2}$ to $\frac{3}{4}$ of a foot-candle. This was very inadequate lighting for a modern industrial plant.

The Solution—

It was finally decided that Permaflexor No. F-1001 was the ideal silver-plated glass reflector for the job having a very concentrated beam, and with this very high mounting, proved to be the correct answer to the problem. On an application of this sort, it was deemed advisable to completely enclose the reflector and lamp in a metal housing because of the dust and soot from oil burners when running carloads of castings into smelting furnaces.

The Permaflexor Engineering Department, in cooperation with Hopkins Brothers, Philadelphia representatives, and Mr. Brainerd of the Philadelphia Electric Company, developed Permaflexor C-1000-S (see page 18), a completely enclosed unit for this particular application. A trial installation of 14 of these new Permaflexors was installed 50 ft. above the floor, spaced 32 ft. on centers. The results were so gratifying that 29 additional units were ordered immediately to complete the installation. Illumination tests after the trial installation revealed an average intensity of 13-foot candles. Quite an improvement over the old lighting.

The illustration lower right shows the application of Permaflexor No. E-225, low mounted over machines in a hosiery mill.



A MODERN DEPARTMENT STORE

The Problem—

When the plans were drawn for the building that houses the Eastern Store in Huntington Park, California, it was necessary to have crossbeams 18 in. deep and 12 in. wide approximately 20 ft. apart and similar beams running the length of the building about 12 in. deep and 10 in. wide, approximately 7½ ft. apart. It was decided to leave these beams in the open.

When the electrical layout was made it was found necessary to allow for two fixtures in each of the small bays made by the beams. This made so many lighting fixtures as to spoil the appearance.

The Solution—

Furring down the ceiling was suggested as a means to remedy the situation, but objections were raised because of the cost. Tests of various lighting equipment were made and flush units equipped with Permaflexors was the solution. The desired illumination could be obtained with two-thirds as many fixtures as originally specified and on checking the cost of the wiring and fixtures under both the original plan and the recommendations, it was found that the savings would practically pay for the suspended ceiling. Accordingly, the ceiling was suspended and Pittsburgh Permaflexors were installed. As shown in the illustrations at the right, the Eastern store has no windows at all on the second and third floors, in fact, the only daylight that reaches the interior of the building is the little that is admitted through the glass in the front and side doors on the first floor. All lighting is from Permaflexors used with flush fixtures and from Pittsburgh indirect fixtures. The average intensity throughout the store is 20 foot-candles. The display windows are equipped with 150 No. 85 and No. 990 Permaflexors.

The Eastern people are so satisfied that they will use the same equipment in all their future stores.



WHAT IS MEANT BY

PERMAFLECTORS are the silver-plated glass reflectors with the **Permanent** reflecting surface made only by the Pittsburgh Reflector Company.

When Type "C" lamps were introduced in 1915, trouble began for manufacturers and users of silvered glass reflectors.

The greater heat of the new lamp caused the backing to crack, check or peel, and the silvered reflecting surface to tarnish or darken.

After a long series of experiments we perfected a process which we have thus far kept secret, whereby we lay a thin sheet of copper over the silver plating. This seals the silver between the glass and the copper.

Like a copper roof—it is a lifetime job.

The silver stays bright.

It is not sufficient that a reflector installation be efficient when first installed.

Initial effectiveness of lighting is important, of course, but it is just as important that this efficiency be maintained.

Not only is the "Pittsburgh" ten-year guarantee an agreement to replace any goods of defective manufacture—but the twenty-one-year history of perfection in manufacture is assurance that replacement will not be needed; that the initial lighting satisfaction will be fully maintained throughout a period of a great many years and that the lighting installation will cost the user least per year.

The following steps show how Permafectors are made.

4 REASONS FOR PERMAFLECTORS LASTING BRIGHTNESS



Get all the light you pay for—use all the light you get. Light, like water and gas, costs money. So use the light you buy to the best advantage. Just as a cheap gas burner wastes gas, so a cheap reflector, or one not specifically adapted to the purpose intended, wastes electricity.

The secret process of copper-sealing the silver-plated glass developed by the Pittsburgh Reflector Company, has caused the name "Permafector" to mean the most efficient reflector for commercial use yet produced. More than 70 different designs afford a range wide enough to meet any lighting requirements. Regardless of the model selected, uniform quality is assured by our completely controlled process of manufacture.

1 The "foundation" of a Permafector—clear, sparkling Crystal Glass, blown in our own plant. Because every step in the manufacture of the glass used in Permafectors is controlled by us, the results are always uniform.



2 Outside double-plated with pure silver, the reflecting surface that absorbs the least amount of light. When protected by the Pittsburgh method it retains permanently its original bright luster.

3 Copper plating covers the silver, sealing it permanently against tarnishing. Like a copper roof it is a lifetime protection.



4 A special silver colored satin finish, attractive and distinctive is properly applied over the copper coating. This finish of neutral tone harmonizes admirably with all surrounding materials and fitments.

PERMAFLECTOR LIGHTING

Comparative Costs of Good and Bad Lighting

There is a difference in reflector efficiency just as there is a difference in automobile efficiency.

In reflectors there is the cost-to-use as well as the cost-to-buy. Reflectors are not standardized. There are many different kinds in the United States—rated good, poor, fair, etc., each has its price. You can pay as little or as much as you like. But making allowances for bargain-driving—you'll get just about what you pay for. You cannot get more out of a reflector, in the way of effective light distribution, continuous light economy, and year-after-year service than was originally put there by the maker. When buying reflectors the most important consideration is **not the price, but the service.**

The price-to-buy may be attractively low, but the cost-to-use expensively high.

If, for every dollar which the merchant spends for current, he gets only 60 cents worth of light (because 40 cents is wasted by poor reflectors) wherein lies the economy of a poor reflector?

If the merchant can buy a good reflector for \$4.50 and it gives brilliant, untarnished service for 15 years—(we know of many in their 20th year of service)—the cost-per-year is only 30 cents, or 2½ cents per month!

If a price reflector can be bought for \$1.50, and it lasts for 3 years, (many are discarded long before that time because of discoloration, checking, peeling, etc.), the cost-per-year is 50 cents, or 4⅙ cents per month. Again the cheap reflector costs too much.

The cheap reflector takes profit. It can not make profit.

Thorough Tests Under Severe Conditions

Before a Permaflexor may be wrapped and packed—before the trade-mark label may be attached—it is subjected to a most severe heating test.

It is put in the oven at 350° F. and this heat is maintained for several hours. This is a necessary process in the making of a Permaflexor, and is of itself a severe test.

It is a simple job for you to test a Permaflexor under extremely severe conditions in a gas or electric oven

equipped with a thermometer. Put the reflectors you wish to test into an oven; heat them to 400 degrees; keep them at that temperature for thirty minutes; then allow them to cool.

Continue this alternate heating and cooling and you will soon find that the Permaflexor is the one that will come through with the backing and the reflecting surface undamaged. This is positive proof of the superiority of Permaflexor.

A Few Typical Installations

Department Stores

Gimbel Brothers.....New York City
Marshall Field & Co.....Chicago, Ill.
Frederick & Nelson.....Seattle, Wash.
Robert Simpson Co., Ltd.....Toronto, Canada
Wanamaker'sPhiladelphia, Pa.

Industrial Buildings

International Harvester Co.....Indianapolis, Ind. and
(Sales & Service).....Winnipeg, Canada
General Steel Castings Corp.....Eddystone, Pa.
Carnegie-Illinois Steel Co.....Pittsburgh, Pa.
American Sheet & Tin Plate Co.....Gary, Indiana
Glenn L. Martin Company.....Baltimore, Md.

Auditoriums

Severance Hall.....Cleveland, Ohio
Roosevelt High School.....Washington, D. C.
Fort Slocum.....New Rochelle, N. Y.
Women's Contemporary Club.....White Plains, N. Y.
Carmichael's High School.....Carmichaels, Pa.

Schools and Colleges

University of Washington.....Seattle, Wash.
Columbia University.....New York City
West Point M. A. Gymnasium.....West Point, N. Y.
Howard University.....Baltimore, Md.
University of Vermont,
Southwick Memorial.....Burlington, Vt.

Office Buildings

Oliver Building.....Pittsburgh, Pa.
Archives Building.....Washington, D. C.
Merchandise Mart.....Chicago, Ill.
Manufacturers Trust Co.....New York City
New Interior Department Building.....Washington, D. C.

Other Installations

Horace C. Henry Art Gallery.....Seattle, Wash.
Pittsburgh Equitable Meter Co.....Pittsburgh, Pa.
Bronx Zoological Garden.....New York City
Royal Ontario Museum.....Toronto, Canada
American Museum of Natural History.....New York City

A 10 Year Guarantee and a 21 Year Record

While there are guarantees and guarantees, a guarantee backed by twenty-one years of practical experience means something. When a customer purchases Permaflexors, he is less interested in the assurance that a responsible manufacturer will replace the equipment if it turns out to be defective than he is in the comfort of this conviction that the product is so good that it will never have to be replaced, a conviction backed up by twenty years of nearly faultless production.

"We unconditionally guarantee to the original purchaser that the backing on Pittsburgh silver plated glass reflectors will not crack, check or peel, and that the silvered reflecting surface will not tarnish, for a period of ten years from date of purchase from us."

If a Permaflexor does not make good, we do, but from the 21-year record of almost perfection in the manufacture of silver plated glass reflectors you know that there is not one chance in ten thousand that any of the Permaflexors you purchase will go bad.

SIMPLIFIED SELECTION OF THE CORRECT TYPE OF PERMAFLECTOR

THE task of selecting a reflector for a particular need is not always as simple as it may at first appear. There are a great number of factors to take into consideration if the correct reflector for a particular job is to be chosen. On the following pages we have endeavored to make the task of selection as simple as possible—but should there be the slightest doubt in your own mind concerning the type of re-

flector best suited for your requirements, do not hesitate to call on our engineering department. It will be noted that we show the distribution curve for each reflector, illustrating its performance. For window reflectors the **full** line curve gives distribution in the plane perpendicular to the plate glass, dotted curve is for the plane parallel with the glass. Select the distribution that best fits the window.

The Factors to Be Considered

In the selection of lighting equipment for any usage, regardless of the problem four pertinent factors must be considered. We give these four factors as applied to a single problem—show window lighting. It is easily apparent that these factors apply similarly in other instances:

- (1) To conceal the light source and thus avoid glare.
- (2) To so locate lamps as to illuminate the display.
- (3) To control the light—gathering up the light that

would, with a bare lamp, be wasted on the ceiling or sidewalk, and re-direct it, concentrating it evenly upon the display plane.

(4) To use plenty of light, not merely to make the display visible, but to attract the passers-by.

Actually these four factors are simple, but it is easy to see how easily a violation of these factors can defeat the work of the sales display. Design the window with best lighting results as the objective.

Show Window Lighting

Permafectors for show window lighting may roughly be classified according to the size of the window in which they are to be employed. For example: To light a shallow window 4 to 9 ft. high, Permafecter No. 55 (see opposite page) is recommended in most instances. By consulting the distribution curve, it is apparent why this Permafecter is recommended. The illustration showing

installation serves to show one method of mounting that may be employed. However, this mounting need not be followed in every case as any of the other methods of installation may be employed with equal effectiveness under normal conditions. For unusual applications we recommend consulting our engineering department. Use louvers in corner and island windows.

Interior Floods and Spots

The use of Interior Floods or Interior Spots is frequently recommended to supplement other forms of lighting already in use. Interior Floods give a somewhat broader beam of light with less intense beam center than do Interior Spots and should be employed accordingly. The use of the distribution chart opposite each flood

and spot shown will make its range of usefulness instantly apparent. It is frequently advisable to make use of Permafecter Colorlites (see page 32), when employing Interior Floods or Spots for a particular need. With Interior Spots use the spill shield to confine the beam.

Indirect Lighting

Permafectors are available for indirect lighting in the form of complete fixtures known as Lustroliers and Luminaires (see pages 27 to 31). In addition Permafectors are available for the special adaptation of indirect lighting, commonly known as cove lighting. Cove lighting has all of the advantages of other forms of indirect lighting plus the additional advantage of entirely concealing all

lighting fixtures as well as the light source. Permafectors offer a large number of units for either of the above forms of indirect lighting, and in addition offer the services of their engineering department when it becomes necessary to design a special unit for an unusual application. It's the Permafecter that controls the light. The enclosure may be widely varied.

Industrial and Direct Lighting

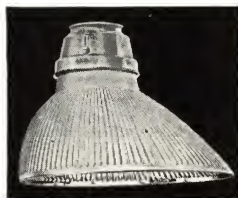
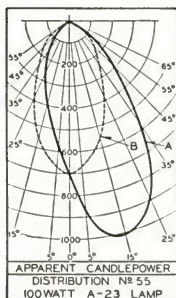
Permafectors offer a variety of industrial lighting units (see page 18) to meet all conditions of service. The distribution curves shown will simplify the task of selecting the particular type of Permafecter needed to meet your particular problem. In addition to these indus-

trial units, Permafectors are also available for direct lighting where a built-in unit is preferable (see page 19). These built-in units may be recessed and louvered as necessary to conceal the lights as completely as possible.

REPRESENTATIVE PERMAFLECTORS FOR SHOW WINDOW LIGHTING

SHALLOW WINDOWS

4 to 9' High



PERMAFLECTOR NO. 55

Application: For windows with medium trim; island windows; or windows with upper portion of background of glass. Also for other display lighting, churches, indoor sports, and indirect cove lighting.

SELECTION DATA

Spacing Recommended: 12 in. on centers.
Bottom Opening: Circular, 8½ in. diameter.

Lamp Size:

100 watt A-23, Adapter compressed.
150 watt A-25, Adapter extended.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3¼ or B-1-4).

When Recessed: *In plaster ceiling*—use Plaster Ring, No. 55-A with Flush Mounting Ring, No. 55.

In ceiling not plastered

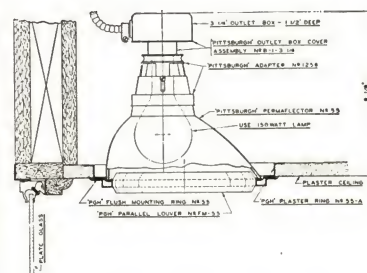
—use Flush Mounting Ring, No. 55.

Louvers: *For External Mounting*—Nos. EM-55 or EM-88-CA.

For Recessed Mounting—Nos.

FM-55 or FM-88-CA (use with Flush Mounting Ring, No. 55).

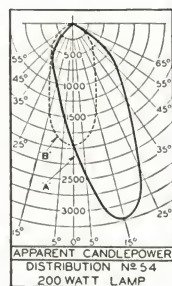
INSTALLATION DIAGRAM



No. 55 with Plaster Ring, Flush Mounting Ring and Louver
Minimum spacing 11 in. on centers.

HIGH and VERY SHALLOW WINDOWS

7 to 10' High



PERMAFLECTOR NO. 54

Application: For windows with medium trim; island windows; or windows with upper portion of background of glass.

Spacing Recommended: 12 in. on centers.
Bottom Opening: Circular, 9½ in. diameter.

Lamp Size:

150 watt A-25, Adapter compressed.
200 watt PS-30, Adapter extended.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3¼ or B-1-4).

When Recessed: *In plaster ceiling*—use Plaster Ring, No. 54 with Flush Mounting Ring, No. 54.

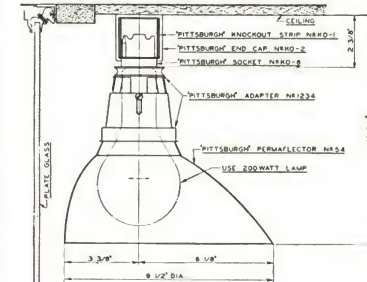
In ceiling not plastered

—use Flush Mounting Ring, No. 54.

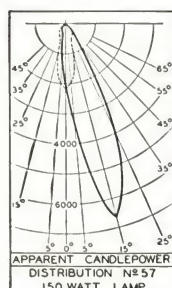
Louvers: *For External Mounting*—Nos. EM-54 or EM-99-CA.

For Recessed Mounting—Nos.

FM-54 or FM-99-CA (use with Flush Mounting Ring, No. 54).



No. 54 General Arrangement
Minimum spacing 10½ in. on centers.



PERMAFLECTOR NO. 57

Application: For windows having height 2 to 3 times the depth; or windows in which display is placed low—such as jewelry, etc.

Spacing Recommended: 12 in. on centers.
Bottom Opening: Circular, 8½ in. diameter.

Lamp Size:

100 watt A-23, Adapter compressed.
150 watt A-25, Adapter extended.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3¼ or B-1-4).

When Recessed: *In plaster ceiling*—use Plaster Ring, No. 55-A with Flush Mounting Ring, No. 55.

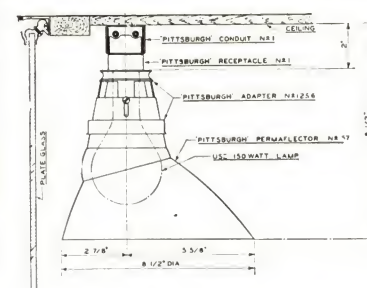
In ceiling not plastered

—use Flush Mounting Ring, No. 55.

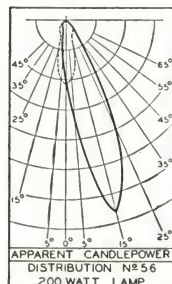
Louvers: *For External Mounting*—Nos. EM-55 or EM-88-CA.

For Recessed Mounting—Nos.

FM-55 or FM-88-CA (use with Flush Mounting Ring, No. 55).



No. 57 General Arrangement
Minimum spacing 9 in. on centers.



PERMAFLECTOR NO. 56

Application: For windows having height 2 to 3 times the depth; or windows in which display is placed low—such as jewelry, etc.

Spacing Recommended: 12 in. on centers.
Bottom Opening: Circular, 9½ in. diameter.

Lamp Size:

150 watt A-25, Adapter compressed.
200 watt PS-30, Adapter extended.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3¼ or B-1-4).

When Recessed: *In plaster ceiling*—use Plaster Ring, No. 54 with Flush Mounting Ring, No. 54.

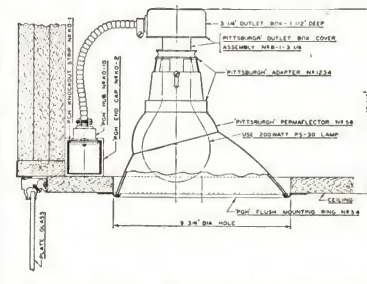
In ceiling not plastered

—use Flush Mounting Ring, No. 54.

Louvers: *For External Mounting*—Nos. EM-54 or EM-99-CA.

For Recessed Mounting—Nos.

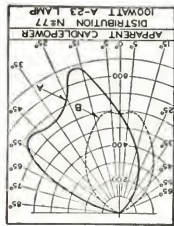
FM-54 or FM-99-CA (use with Flush Mounting Ring, No. 54).



No. 56 Flush Mounting Arrangement
Minimum spacing 12 in. on centers.

REPRESENTATIVE PERMAFLECTORS

DEEP WINDOWS



PERMAFLECTOR NO. 77

Application: Illuminates full height of background without sharp cut-off of more concentrating types. Also for indirect lighting from wall urns, coves, columns and indirect floor lamps.

SELECTION DATA

Spacing Recommended: 12 in. on centers.
Bottom Opening: Circular, 7 in. diameter.

Lamp Size:

100 watt A-23.

Holder: 2 1/4 in. Form "S".

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4-S or B-1-4-S).

When Recessed: *In plaster ceiling*—use Plaster Ring, No. 77 with Flush Mounting Ring, No. 77.

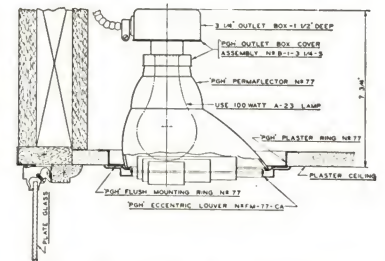
In ceiling not plastered

—use Flush Mounting Ring, No. 77.

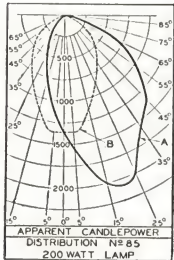
Louvers: *For External Mounting*—Nos. EM-77 or EM-77-CA.

For Recessed Mounting—Nos. FM-77 or FM-77-CA (use with Flush Mounting Ring, No. 77).

INSTALLATION DIAGRAM



No. 77 with Plaster Ring, Flush Mounting Ring and Louver
Minimum spacing 9 1/4 in. on centers.



PERMAFLECTOR NO. 85

Application: Illuminates full height of background without sharp cut-off of more concentrating types. Also for indirect lighting from wall urns, coves, columns and indirect floor lamps.

Spacing Recommended: 12 in. on centers.
Bottom Opening: Circular, 8 1/2 in. diameter.

Lamp Size:

150 watt A-25, Adapter compressed.

200 watt PS-30, Adapter extended.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4).

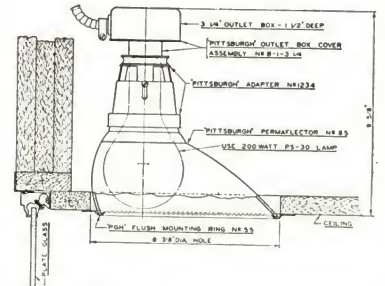
When Recessed: *In plaster ceiling*—use Plaster Ring, No. 55-A with Flush Mounting Ring, No. 55.

In ceiling not plastered

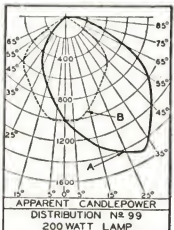
—use Flush Mounting Ring, No. 55.

Louvers: *For External Mounting*—Nos. EM-55 or EM-55-CA.

For Recessed Mounting—Nos. FM-55 or FM-55-CA (use with Flush Mounting Ring, No. 55).



No. 85 Flush Mounting Arrangement
Minimum spacing 10 1/2 in. on centers.



PERMAFLECTOR NO. 99

Application: Illuminates full height of background without sharp cut-off of more concentrating types. Also for indirect lighting from wall urns, coves, columns and indirect floor lamps.

Spacing Recommended: 12 in. on centers.
Bottom Opening: Circular, 9 1/2 in. diameter.

Lamp Size:

200 watt PS-30, Adapter compressed.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4).

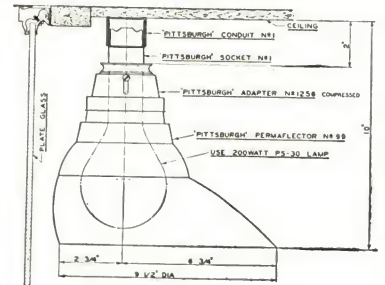
When Recessed: *In plaster ceiling*—use Plaster Ring, No. 54 with Flush Mounting Ring, No. 54.

In ceiling not plastered

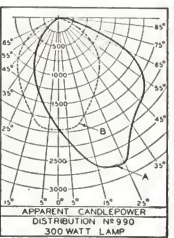
—use Flush Mounting Ring, No. 54.

Louvers: *For External Mounting*—Nos. EM-54 or EM-54-CA.

For Recessed Mounting—Nos. FM-54 or FM-54-CA (use with Flush Mounting Ring, No. 54).



No. 99 General Arrangement
Minimum spacing 10 1/2 in. on centers.



PERMAFLECTOR NO. 990

Application: Illuminates full height of background without sharp cut-off of more concentrating types. Also for indirect lighting from wall urns, coves, columns and indirect floor lamps.

Spacing Recommended: 12 in. on centers.
Bottom Opening: Circular, 9 1/2 in. diameter.

Lamp Size:

300 watt PS-35, any position.

500 watt PS-40, for indirect lighting, *base down only*.

Mounting: May be mounted on Conduit (No. 6) —in which case discard Outlet Box Cover.

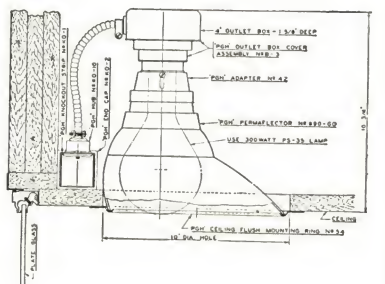
When Recessed: *In plaster ceiling*—use Plaster Ring, No. 54 with Flush Mounting Ring, No. 54.

In ceiling not plastered

—use Flush Mounting Ring, No. 54.

Louvers: *For External Mounting*—Nos. EM-54 or EM-54-CA.

For Recessed Mounting—Nos. FM-54 or FM-54-CA (use with Flush Mounting Ring, No. 54).

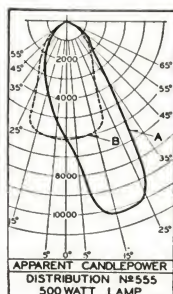


No. 990 Flush Mounting Arrangement
Minimum spacing 12 in. on centers.

FOR SHOW WINDOW LIGHTING

SHALLOW WINDOWS

8 to 16' High



PERMAFLECTOR NO. 555

Application: For shallow windows and island windows. Also serves the various applications of No. 55 and No. 54 where a higher wattage is required because of greater elevation.

SELECTION DATA

Spacing Recommended: 15 in. on centers.

Bottom Opening: Circular, 12½ in. diameter.

Lamp Size:

300 watt PS-35.

500 watt PS-40.

Mounting: May be mounted on Conduit (No. 6)

—in which case, discard Outlet Box Cover.

When Recessed: *In plaster ceiling*—use Plaster Ring, No. 555 with Flush Mounting Ring, No. 555.

In ceiling not plastered

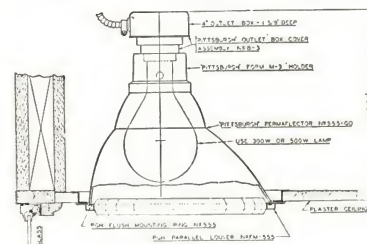
—use Flush Mounting Ring, No. 555.

Louvers: *For External Mounting*—Nos. EM-555 or EM-555-C.

For Recessed Mounting—Nos.

FM-555 or FM-555-C (use with Flush Mounting Ring, No. 555).

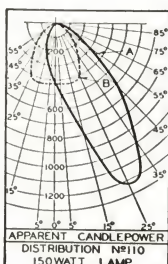
INSTALLATION DIAGRAM



No. 555 with Plaster Ring, Flush Mounting Ring and Louver

Minimum spacing 15 in. on centers.

4 to 9' High



PERMAFLECTOR NO. 110

Application: For low, deep windows, in which trim is carried full height. For corner windows equipped with concentric louvers. Also for other display lighting, rug racks, interior wall displays and indirect cove lighting.

Spacing Recommended: 12 in. on centers.

Bottom Opening: Circular, 8½ in. diameter.

Lamp Size:

100 watt A-23, Adapter compressed.

150 watt A-25, Adapter extended.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4).

When Recessed: *In plaster ceiling*—use Plaster Ring, No. 55-A with Flush Mounting Ring, No. 55.

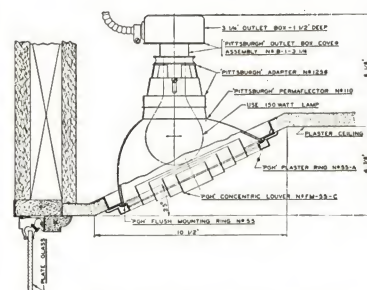
In ceiling not plastered

—use Flush Mounting Ring, No. 55.

Louvers: *For External Mounting*—Nos. EM-55 or EM-55-C.

For Recessed Mounting—Nos.

FM-55 or FM-55-C (use with Flush Mounting Ring, No. 55).

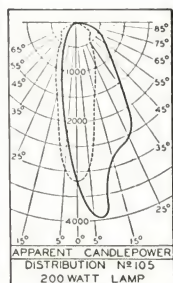


No. 110 with Plaster Ring, Flush Mounting Ring and Louver

Minimum spacing 11 in. on centers.

DEEP WINDOWS

7 to 10' High



PERMAFLECTOR NO. 105

Application: For deep windows, in which trim is carried full height. For corner windows equipped with concentric louvers. Also for other display lighting, rug racks, interior wall displays and indirect cove lighting.

Spacing Recommended: 12 in. on centers.

Bottom Opening: Circular, 9½ in. diameter.

Lamp Size:

150 watt A-25, Adapter compressed.

200 watt PS-30, Adapter extended.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4).

When Recessed: *In plaster ceiling*—use Plaster Ring, No. 54 with Flush Mounting Ring, No. 54.

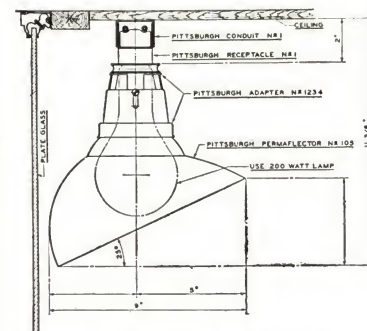
In ceiling not plastered

—use Flush Mounting Ring, No. 54.

Louvers: *For External Mounting*—Nos. EM-54 or EM-54-C.

For Recessed Mounting—Nos.

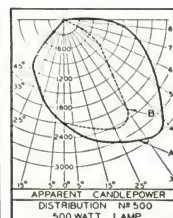
FM-54 or FM-54-C (use with Flush Mounting Ring, No. 54).



No. 105 General Arrangement

Minimum spacing 10½ in. on centers.

9 to 16' High



PERMAFLECTOR NO. 500

Application: For deep windows in which trim is carried full height of window. Also for other display lighting and cove in large interiors.

Spacing Recommended: 15 in. on centers.

Bottom Opening: Width, 12 in.

Lamp Size:

300 watt PS-35.

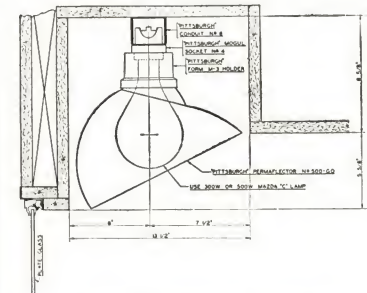
500 watt PS-40.

Mounting: May be mounted on Conduit (No. 6)

—in which case, discard Outlet Box Cover.

When Recessed: *In ceiling not plastered*—use Flush Mounting Ring, No. 500.

Louvers: *For External Mounting*—Nos. EM-555 or EM-555-C.



No. 500 Trough Mounting

Minimum spacing 14 in. on centers.

PERMAFLECTOR INTERIOR FLOODS

FOR INTERIOR USE ONLY
The use of Interior Floods parallels the use of Interior Spots, but will be preferred where a somewhat broader beam of light with less intense beam center is desired.

Permaflex Interior Floods are similar in construction to Interior Spots, excepting they employ a flood type of Permaflex, the distribution of which is less concentrating.

Furnished complete as shown, with socket, cord and plug. Color-Lites available for use with each Interior Flood.

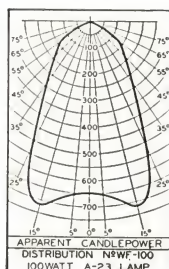
The use of Interior Floods parallels the use of Interior Spots but will be preferred where a somewhat broader beam of light with less intense beam center is desired.

Other Uses—Supplementary illumination of automobile show rooms, where it is desired to flood the entire room in addition to the regular interior and window lighting; and for night lighting and emergency lighting service. A single Flood, placed at the front of a small store, usually over the entrance, will

serve to flood the entire interior during the night as a protection against burglary.

Spacing—The number of Interior Floods to be installed in a window, the same as in the case of Spots, depends upon the psychological effect at which the display man is aiming. Usually two floods or spots should be provided in each window as an auxiliary to the window lighting. Extra convenience outlets should be provided in each window in order to properly serve these units.

There are many other special uses for Floods. Each lighting problem will require its own solution and we suggest that you consult our Engineering Department when you have a specific problem for solution.



INTERIOR FLOOD NO. WF-100

SELECTION DATA

Bottom Opening: Circular, 6 3/4 in. diameter.

Height: Overall including bracket, 10 1/2 in.

Lamp Size:

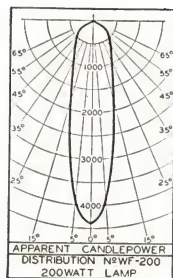
100 watt A-23.

May Be Mounted on Knockout Strip: No. KO-1 with Hub No. KO-10 and Flange No. KO-12.

For Colored Lighting: Use Color-Lite—No. 4-A or No. 4-ADB.

For Louvered Lighting: Use Parallel Louver—No. EM-77.

Concentric Louver: No. EM-77-C.



INTERIOR FLOOD NO. WF-200

Bottom Opening: Circular, 9 7/8 in. diameter.

Height: Overall including bracket, 11 1/4 in.

Lamp Size:

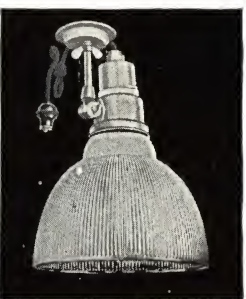
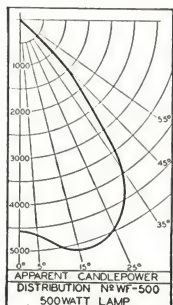
200 watt PS-30.

May Be Mounted on Knockout Strip: No. KO-1 with Hub No. KO-10 and Flange No. KO-12.

For Colored Lighting: Use Color-Lite—No. 2 or No. 2-DB.

For Louvered Lighting: Use Parallel Louver—No. EM-54.

Concentric Louver: No. EM-54-C.



INTERIOR FLOOD NO. WF-500

Bottom Opening: Circular, 11 7/8 in. diameter.

Height: Overall including bracket, 18 in.

Lamp Size:

500 watt PS-40.

300 watt PS-35.

May Be Mounted on Knockout Strip: No. KO-1 with Hub No. KO-10 and Flange No. KO-12. (When ordering WF-500 for this service ask for small base plate).

For Colored Lighting: Use Color-Lite—No. 14-A.

For Louvered Lighting: Use Parallel Louver—No. EME-500.

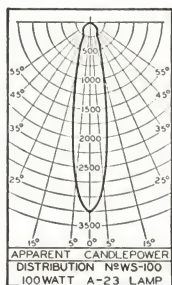
Concentric Louver: No. EME-500-C.

PERMAFLECTOR INTERIOR

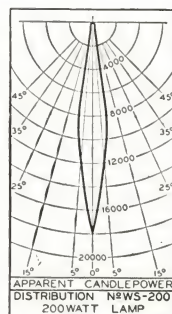
SPOTS

FOR INTERIOR USE ONLY

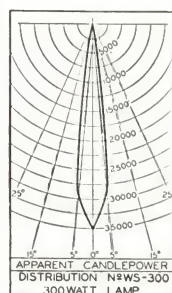
These provide an effective method of high lighting with clear or colored light, as for example, portions of window displays to which particular attention should be drawn.



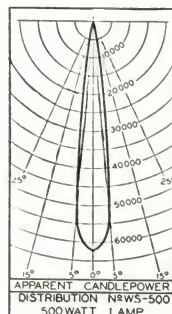
INTERIOR SPOT, NO. WS-100



INTERIOR SPOT, NO. WS-200



INTERIOR SPOT, NO. WS-300



INTERIOR SPOT, NO. WS-500

SELECTION DATA

Bottom Opening: Circular, 8½ in. diameter.

Height: Overall including bracket, 11 in.

Lamp Size:

100 watt A-23.

May Be Mounted on Knockout Strip: No.

KO-1 with Hub No. KO-10 and Flange

No. KO-12.

For Colored Lighting: Use Color-Lite—No. 6

or No. 6-DB.

For Louvered Lighting: Use Parallel Louver

No. EM-55.

Concentric Louver: No. EM-55-C.

For Spill Light Elimination: Use Spill Shield

No. SS-100.

Bottom Opening: Circular, 10 in. diameter.

Height: Overall including bracket, 13½ in.

Lamp Size:

200 watt PS-30.

May Be Mounted on Knockout Strip: No.

KO-1 with Hub No. KO-10 and Flange

No. KO-12.

For Colored Lighting: Use Color-Lite—No. 2

or No. 2-DB.

For Louvered Lighting: Use Parallel Louver

No. EM-54.

Concentric Louver: No. EM-54-C.

For Spill Light Elimination: Use Spill Shield

No. SS-200.

Bottom Opening: Circular 11½ in. di-

ameter.

Height: Overall including bracket, 13¾ in.

Lamp Size:

300 watt PS-35.

May Be Mounted on Knockout Strip: No.

KO-1 with Hub No. KO-10 and Flange

No. KO-12.

For Colored Lighting: Use Color-Lite—No.

10 or No. 10-DB.

For Louvered Lighting: Use Parallel Louver

No. EME-500.

Concentric Louver: No. EME-500-C.

For Spill Light Elimination: Use Spill Shield

No. SS-300.

Bottom Opening: Circular, 13½ in. di-

ameter.

Height: Overall including bracket, 18 in.

Lamp Size:

500 watt PS-40.

300 watt PS-35.

May Be Mounted on Knockout Strip: No.

KO-1 with Hub No. KO-10 and Flange

No. KO-12. (When ordering WS-500 for

this service ask for small base plate).

For Colored Lighting: Use Color-Lite—No. 8

or No. 8-DB.

For Louvered Lighting: Use Parallel Louver

No. EM-555.

Concentric Louver: No. EM-555-C.

For Spill Light Elimination: Use Spill Shield

No. SS-500.

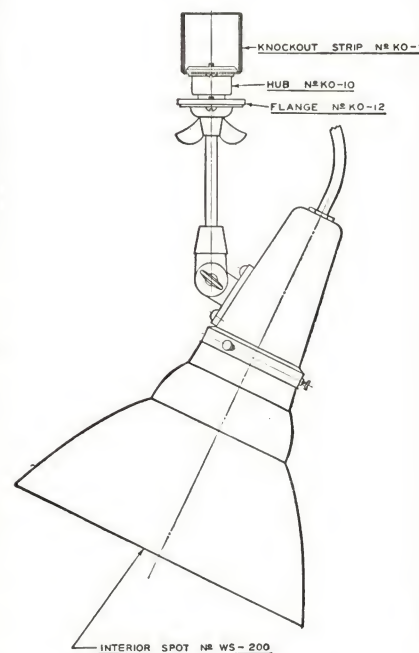
Permaflexor Interior Spots are window lighting equipment consisting of an adjustable bracket with base for attaching to the ceiling, transom bar, etc.; spot type of Permaflexor with exceedingly concentrating distribution; socket and husk. Furnished complete as shown, with cord and attachment plug.

They provide an effective method of high-lighting with clear or colored light, any portion of the window display on which the display man desires to focus the attention of the customers. Interior Spots are auxiliary window lighting equipment and are not intended as the sole source of illumination in a show window.

Other Uses—Reducing daylight reflections in a show window; for special lighting on stages; in automobile show rooms, to silhouette a car against a light background; dance halls for so-called "moonlight" dances; lighting of walls of art galleries and churches; skylights; church art glass windows and any other purpose where exceedingly concentrated illumination is desired.

Spacing—It is well to provide two in each window as auxiliary lighting. Extra convenience receptacles should be provided for same.

Color Lighting—Color-Lites are available for use with each size.

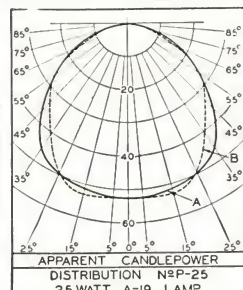


Interior Spot No. WS-200
Suspended from Knockout Strip

REPRESENTATIVE PERMAFLECTORS

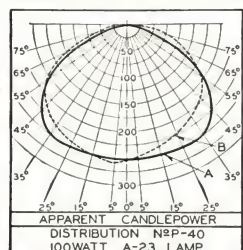
The P Type Permaflectors are designed for use with lamps in the horizontal position and find their greatest use lamps radiating horizontally from a center body carrying the sockets. They are excellent for lighting stock quotation limited, rug racks, etc.

APPLICATION



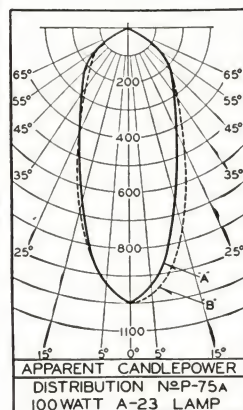
PERMAFLECTOR NO. P-25

For cove lighting, wall cases, bank cages, etc. Also for multi-unit, low wattage indirect fixtures. Broad distribution.



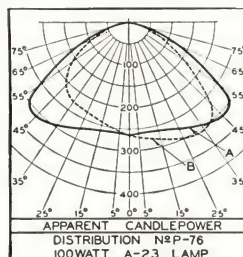
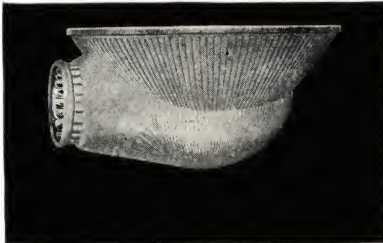
PERMAFLECTOR NO. P-40

For indirect lighting from coves. Broad distribution. Also for lighting wall cases, bank cages, indirect lighting fixtures, art galleries, etc.



PERMAFLECTOR NO. P-75-A

For cove lighting where a concentrated distribution is required; also for stock quotation boards, art galleries, indirect lighting fixtures.



PERMAFLECTOR NO. P-76

For indirect lighting from coves. Very broad distribution. Also for indirect lighting fixtures in special applications where spacing is limited.



SELECTION DATA

Minimum Spacing: 6 in. on centers.

Dimensions: Opening, 3 1/8 in. diameter; Height, 3 1/4 in.; Length, 4 1/8 in.

Lamp Size:

25 watt A-19.

40 watt A-19.

Holder: With Conduit No. 2-A or Outlet Box Cover Assemblies No. B-2-3/4 or B-2-4, use 2 1/4 in. Form "S" holder for 25 watt A-19 lamp; 2 1/4 in. Form "SL" holder for 40 watt A-19 lamp, attached directly to socket.

May Be Installed With Outlet Box Cover Assembly: No. B-2-3/4 or B-2-4 with 2 1/4 in. Form "S" or "SL" holders.

May Be Mounted On Conduit: No. 2-A with 2 1/4" Form "S" or "SL" holders.

Minimum Spacing: 7 3/4 in. on centers.

Dimensions: Height, 2 3/4 in.; Width, 4 1/4 in.; Length, 5 1/2 in.

Lamp Size:

60 watt A-21.

75 watt A-21.

100 watt A-23.

Holder: With Conduit No. 2-A or Outlet Box Cover Assemblies No. B-2-3/4 or B-2-4, use 2 1/4 in. Form "S" holder for 60 watt A-21 lamp; 2 1/4 in. Form "SL" holder for 75 watt A-21 lamp; 2 1/4" Form "L" holder for 100 watt A-23 lamp, attached directly to socket.

May Be Installed With Outlet Box Cover Assembly: No. B-2-3/4 or B-2-4 with 2 1/4 in. Form "S", "SL" or "L" holders.

May Be Mounted On Conduit: No. 2-A with 2 1/4" Form "S", "SL" or "L" holders.

Minimum Spacing: 7 3/4" on centers.

Dimensions: Opening, 6 3/4 in. diameter; Height, 3 5/8 in.; Length, 7 in.

Lamp Size:

100 watt A-23.

Holder: With Conduit No. 2-A or Outlet Box Cover Assemblies No. B-2-3/4 or B-2-4, use 2 1/4 in. Form "S" holder attached directly to socket.

May Be Installed With Outlet Box Cover Assembly: No. B-2-3/4 or B-2-4 with 2 1/4 in. Form "S" holder.

May Be Mounted on Conduit: No. 2-A with 2 1/4 in. Form "S" holders.

For Colored Lighting: Use Color-Lite—No. 4-A or No. 4-ADB.

Minimum Spacing: 7 1/2 in. on centers.

Dimensions: Opening 4 3/4 in. diameter; Height, 3 in.; Length, 5 1/8 in.

Lamp Size:

60 watt A-21.

75 watt A-21.

100 watt A-23

Holder: With Conduit No. 2-A, or Outlet Box Cover Assemblies No. B-2-3/4 or B-2-4, use 2 1/4 in. Form "S" holder for 60 watt A-21 lamp; 2 1/2 in. Form "SL" holder for 75 watt A-21 lamp; 2 1/4 in. Form "L" holder for 100 watt A-23 lamp, attached directly to socket.

May Be Installed With Outlet Box Cover Assembly: No. B-2-3/4 or B-2-4 with 2 1/4 in. Form "S", "SL" or "L" holders.

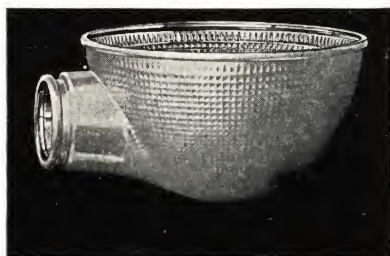
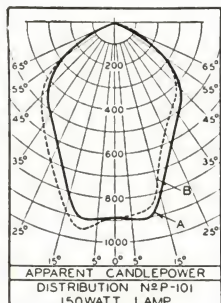
May Be Mounted On Conduit: No. 2-A with 2 1/4 in. Form "S", "SL" or "L" holders.

For Colored Lighting: Use Color-Lite—No. 12-A or No. 12-ADB.

FOR COVE LIGHTING (INDIRECT)

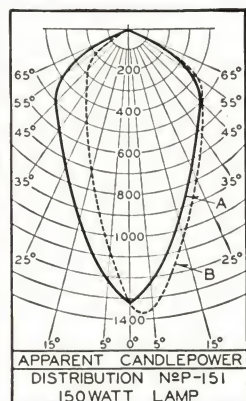
for indirect lighting from coves. They are also used in shallow indirect lighting bowls employing a number of tation boards, wall cases, bank cages, art galleries and museums, small show windows where overhead room

APPLICATION



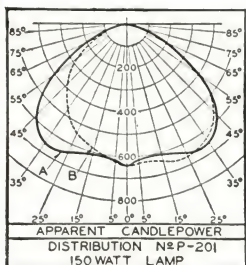
PERMAFLECTOR NO. P-101

For cove lighting, particularly where large areas are to be lighted; also for indirect lighting fixtures for special applications requiring high wattage within limited space. Broad distribution.



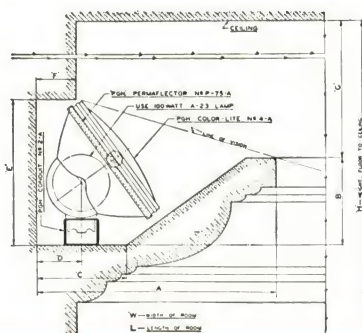
PERMAFLECTOR NO. P-151

For indirect lighting from coves where concentrated distribution is required. Also for indirect lighting fixtures, rug racks, stock quotation boards, art galleries, and small shallow show windows.



PERMAFLECTOR NO. P-201

For cove lighting and multi-unit shallow bowl indirect or luminous bowl fixtures. Broad distribution.



SELECTION DATA

Minimum Spacing: 9 in. on centers.

Dimensions: Opening, 6¾ in. diameter; Height, 3⅞ in.; Length, 7¾ in.

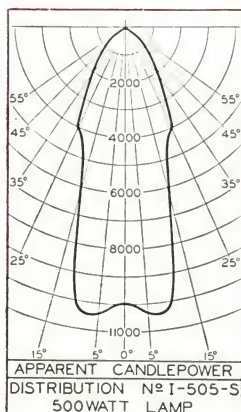
Lamp Size:

150 watt A-25.

Holder: With Conduit No. 2-A or Outlet Box Cover Assemblies No. B-2-3¼ or B-2-4, use 2¼ in. Form "S" holder attached directly to socket.

PERMAFLECTOR INDUSTRIAL LIGHTING EQUIPMENT

Application: For high bay industrial lighting where the lighting equipment is located 25 ft. or more above the floor and exceptional concentration is required. The spacing between Permaflectors should not exceed their height above the work plane.



NO. I-505-S

SELECTION DATA

PERMAFLECTOR NO. I-505-S

Description: Permaflector No. I-050-GO enclosed in aluminum housing. Attaches to any ½ inch conduit hanger.

Application: Same as Permaflector No. I-505. Used where protection to silvered glass reflector is desirable.

Dimensions: Diameter, 16½ in.; Height, overall, 16½ in.
Lamp Size: 500 watt PS-40; 300 watt PS-35.



NO. I-505-RS

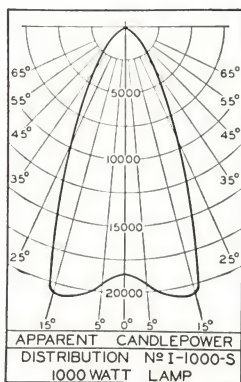
PERMAFLECTOR NO. I-505-RS

Description: Same as I-505-S but equipped with hinged door carrying heat resisting stippled glass roundel.

Application: Same as I-505-S.

Dimensions: Diameter, 17 in.; Height, overall, 19 in.

Lamp Size:
500 watt PS-40.
300 watt PS-35.



NO. I-1000-S

PERMAFLECTOR NO. I-1000-S

Description: Permaflector No. I-050-GO enclosed in aluminum housing complete with mogul socket and arranged to attach to any ½ inch conduit hanger. Permaflector removable.

Application: Same as Permaflector No. I-1001. Used where protection to silvered glass reflector is desirable.

Dimensions: Diameter, 16½ in.; Height, overall, 18½ in.
Lamp Size:
1000-750 watt PS-52.



NO. I-1000-RS

PERMAFLECTOR NO. I-1000-RS

Description: Same as I-1000-S but equipped with hinged door carrying heat resisting stippled glass roundel.

Application: Same as I-1000-S.

Dimensions: Diameter, 17 in.; Height, overall, 21 in.

Lamp Size:
1000-750 watt PS-52.



NO. E-500-S

PERMAFLECTOR NO. E-500-S

Application: A reflector of wide utility. It is enclosed in aluminum housing for industrial and public space illumination. Excellent for use above skylights.

Lamp Size:
500 watt PS-40.
300 watt PS-35.

Description: Permaflector No. E-500-S employs Permaflector No. E-500-GO enclosed in aluminum housing. Permaflector readily removable. Furnished complete with socket. Attaches to any standard ½ in. conduit hanger.

Dimensions: Diameter, 12½ in.; height, overall, 15¼ in.



NO. C-1000-S

PERMAFLECTOR NO. C-1000-S

Description: A super high bay industrial lighting unit. Consists of Permaflector No. F-1001 enclosed in aluminum housing with hinged door containing 15¾ inch dia. inside stippled heat resisting glass roundel, making it dust tight. Attaches to any standard ½ inch conduit hanger.

Application: For high industrial interiors, gymnasiums, auditoriums, boxing arenas, etc. Has 40-degree beam. At 25-foot mounting height, covers an area on the floor of 18.2 foot diameter; at 100-foot mounting, covers 72.8-foot diameter.

Beam lumens approx. 7500. Total output lumens approx. 16,000 in overall angle of 100 degrees.

Dimensions: Diameter, 17 in.; Height, overall, 21 in.

Lamp Size: 1000-750 watt PS-52.



NO. PE-100-1A

PERMAFLECTOR NO. PE-100-1A

Description: No. PE-100-1A consists of spun aluminum shell containing medium base porcelain socket and Permaflector No. E-100, equipped with Hinged Ceiling Roundel No. 1-A, fabricated of sheet steel. Equipped with ½ inch female cap at top, which attaches to any standard ½ inch conduit hanger.

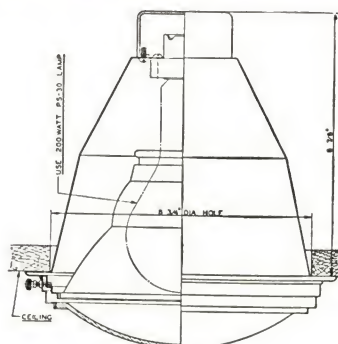
Finish: Etched aluminum for the shell and sprayed baked aluminum for the Hinged Ceiling Roundel No. 1-A.

Application: An excellent direct lighting unit for illumination of rugs displayed on the floor and any similar use. A good industrial lighting unit.

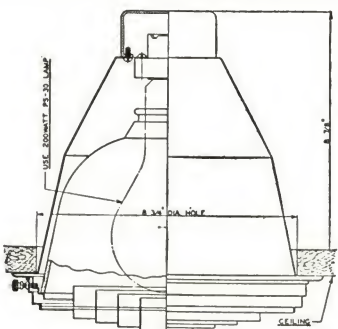
Lamp Size: 200 watt PS-30.

PERMAFLECTOR BUILT-IN

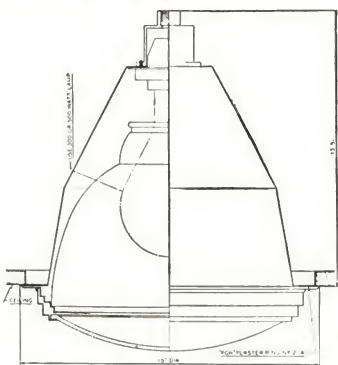
DIRECT LIGHTING UNITS



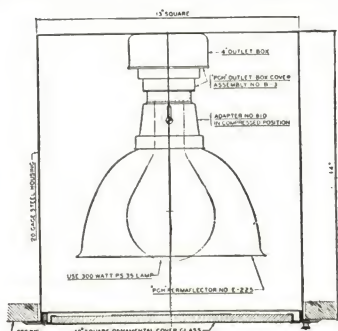
NO. FC-101-1A



NO. FE-100-C



NO. FE-500-2A



NO. GR-30012

SELECTION DATA

PERMAFLECTOR NO. FC-101-1A

Description: No. FC-101-1A consists of spun aluminum housing, 3 1/4 inch outlet box, socket No. 1 Hinged Ceiling Roundel No. 1-A and Permalector No. C-101.

Application: A variety of uses will suggest themselves. One important application is for lighting jewelry stores with the unit arranged in rows over the counters, or cases, spaced three to six feet on centers. The result is a high intensity of illumination on the counters or cases with diminished intensities in the aisles. Whether or not general indirect illumination should be employed will depend upon conditions.

Lamp Size:

200 watt PS-30.

When Recessed in Plaster Ceiling: Use Plaster Ring—No. 1-A.

No. FC-101-C: Same as FC-101-1A except with Hinged Concentric Louver No. 1-A.

PERMAFLECTOR NO. FE-100-C

Description: No. FE-100-C consists of sheet aluminum housing, containing 3 1/4 inch outlet box, socket, Permalector No. E-100 and Hinged Concentric Louver No. 1-A. Also available with Egg Crate louvers on special order.

Application: These units are exceptionally good for locations having low ceiling heights, as for instance in areas below mezzanine floors.

These units should be spaced on centers not exceeding the height of the ceiling. The louvers when viewed from a distance give the illusion of luminous glass.

Lamp Size:

200 watt PS-30.

When Recessed in Plaster Ceiling: Use Plaster Ring—No. 1-A.

No. FE-101-1A: Same as FE-100-C except with Hinged Ceiling Roundel No. 1-A.

PERMAFLECTOR NO. FE-500-2A

Description: No. FE-500-2A consists of spun aluminum housing, Box No. KO-11, Mogul Socket No. 4, Hinged Ceiling Roundel No. 2-A and Permalector No. E-500-GO.

Application: Recessed lighting is gaining popularity for store interiors. FE-500-2A is excellent for medium height ceilings. Also a good gymnasium and auditorium lighting unit.

These units should be spaced on centers not exceeding the height of the ceiling.

Lamp Size:

500 watt PS-40.

300 watt PS-35.

When Recessed in Plaster Ceiling: Use Plaster Ring—No. 2-A.

No. FE-500-C: Same as No. FE-500-2A. Instead of a roundel it is equipped with concentric louver. Louvers are luminous by reflected light and from a distance give the illusion of luminous glass.

PERMAFLECTOR NO. GR-30012

Description: No. GR-30012 consists of 20-gauge steel box to be set flush in ceiling; frame and hinged door containing 12 inch square ornamental white glass plate; outlet box, mogul socket, holder and Permalector No. E-225-GO.

Finish: Sprayed and baked aluminum.

Application: An excellent unit for recessed lighting installations. The glass panel is ornamental as well as an effective means of concealing the Permalector which controls and redirects the light. A broadly distributing unit. Maximum spacing one and one-half times mounting height.

Ceiling Space Required: Requires a clear space of 14 inches above ceiling line and a 13 inch square opening in ceiling.

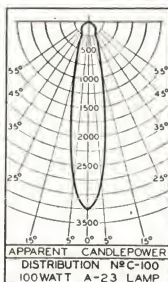
Lamp Size:

300 watt PS-35.

No. GR-20012: Same as No. GR-30012 except for use with 200 watt PS-30 lamp.

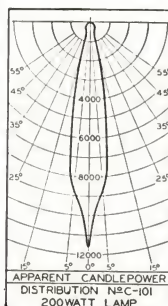
Ceiling Space Required: Requires a clear space of 11 inches above ceiling line and a 13 inch square opening in ceiling.

PERMAFLECTOR LIGHTING



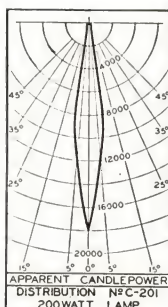
PERMAFLECTOR
NO. C-100

Application: This is Permaflector used with Spot WS-100. May be set flush in ceiling and louvered for spot lighting effects. A good cove lighting reflector where narrow concentrated beam of light for long throw is required.



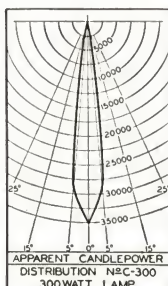
PERMAFLECTOR
NO. C-101-A

Application: May be used for same purposes as C-100, where 200 watt lamp size is required.



PERMAFLECTOR
NO. C-201-A

Application: This is Permaflector used with Spot WS-200. May be set flush in ceiling and louvered for spot lighting effects. A good cove lighting reflector where narrow concentrated beam of light for long throw is required.



PERMAFLECTOR NO. C-300-A

Application: This is Permaflector used with Spot WS-300. Recommended for recessing in the ceiling with flush mounting ring and concentric louver or hinged ceiling roundel. Delivers intense illumination over limited area.

SELECTION DATA

Spacing Recommended: 12 in. on centers.
Bottom Opening: Circular, 8 1/8 in. diameter.

Lamp Size:

60 watt A-21.
75 watt A-21.
100 watt A-23.
150 watt A-25.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4). Use with 2 1/4 in. Holder, Form "S", "SL", "L" or "LCA".

When Recessed: In plaster ceiling—use Plaster Ring, No. 55-A with Flush Mounting Ring, No. C-100; or Plaster Ring, No. 1-A, with Hinged Ceiling Roundel, No. 1-A; or Hinged Concentric Louver, No. 1-A.

In ceiling not plastered—use Flush Mounting Ring, No. C-100; or Hinged Ceiling Roundel, No. 1-A; or Hinged Concentric Louver, No. 1-A.

Louvers: For External Mounting—Nos. EM-55 or EM-55-C.

Spacing Recommended: 12 in. on centers.
Bottom Opening: Circular, 8 1/8 in. diameter.

Lamp Size:

150 watt A-25, Adapter compressed.
200 watt PS-30, Adapter extended.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip No. KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4).

When Recessed: In plaster ceiling—use Plaster Ring, No. 55-A with Flush Mounting Ring, No. C-100; or Plaster Ring, No. 1-A with Hinged Ceiling Roundel, No. 1-A or Hinged Concentric Louver No. 1-A.

In ceiling not plastered—use Flush Mounting Ring, No. C-100; or Hinged Ceiling Roundel, No. 1-A; or Hinged Concentric Louver No. 1-A.

Louvers: For External Mounting—Nos. EM-55 or EM-55-C.

For Recessed Mounting—Nos. FM-55, FM-55-C, FEC-100 (use with Flush Mounting Ring, No. C-100); or Hinged Concentric Louver, No. 1-A.

Spacing Recommended: 12 in. on centers.
Bottom Opening: Circular, 10 in. diameter.

Lamp Size:

150 watt A-25, Adapter compressed.
200 watt PS-30, Adapter extended.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip No. KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4).

When Recessed: In plaster ceiling—use Plaster Ring, No. 54 with Flush Mounting Ring, No. C-201; or Plaster Ring, No. 6 with Hinged Ceiling Roundel, No. 6 or Hinged Concentric Louver No. 6.

In ceiling not plastered—use Flush Mounting Ring, No. C-201; or Hinged Ceiling Roundel, No. 6; or Hinged Concentric Louver No. 6.

Louvers: For External Mounting—Nos. EM-54 or EM-54-C.

For Recessed Mounting—Nos. FM-54, FM-54-C, FEC-200 (use with Flush Mounting Ring, No. C-201); or Hinged Concentric Louver, No. 6.

Bottom Opening: Circular, 11 1/2 in. diameter.

Lamp Size:
300 watt PS-35.

Mounting: May be mounted on Conduit (No. 6) —in which case discard Outlet Box Cover.

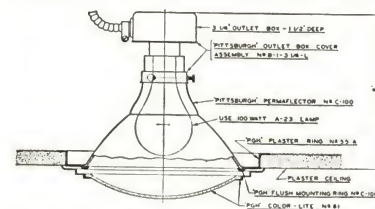
When Recessed: In plaster ceiling—use Plaster Ring No. 555 with Flush Mounting Ring, No. C-300; or Plaster Ring, No. 2-A with Hinged Ceiling Roundel No. 2-A or Hinged Concentric Louver No. 2-A.

In ceiling not plastered—use Flush Mounting Ring, No. C-300; or Hinged Ceiling Roundel, No. 2-A; or Hinged Concentric Louver No. 2-A.

Louvers: For External Mounting—Nos. EME-500 or EME-500-C.

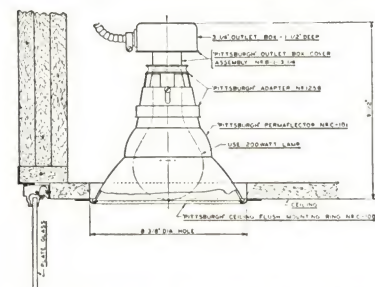
For Recessed Mounting—Nos. FME-500, FME-500-C, FEC-300 (use with Flush Mounting Ring, No. C-300); or Hinged Concentric Louver, No. 2-A.

INSTALLATION DATA

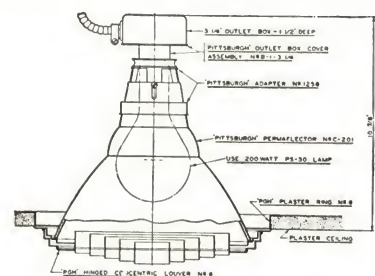


No. C-100 Recessed in Plaster Ceiling and Color-Lite

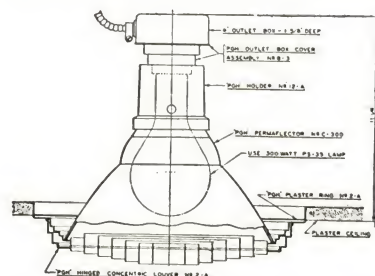
For Recessed Mounting—Nos. FM-55, FM-55-C, FEC-100 (use with Flush Mounting Ring, No. C-100); or Hinged Concentric Louver, No. 1-A.



No. C-101-A Flush Mounting Arrangement
Minimum spacing 10 1/2" on centers.

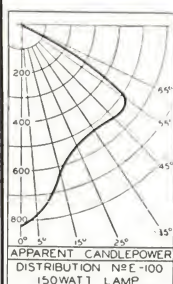


No. C-201-A Recessed in Ceiling, with Hinged Concentric Louver



No. C-300-A Recessed in Ceiling with Hinged Concentric Louver

EQUIPMENT WITH WIDE VARIETY OF APPLICATION



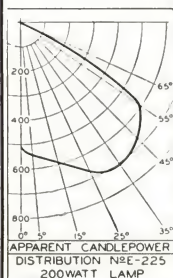
PERMAFLECTOR NO. E-100

Application: A broadly distributing reflector for direct lighting service. Used exposed in factories or recessed as in gymnasiums, below mezzanine floors and other locations with low head room.



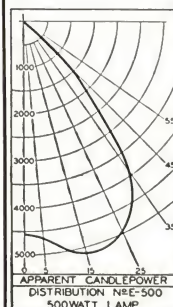
PERMAFLECTOR NO. E-200

Application: A broadly distributing reflector for same service as E-100. Other uses include recessed lighting of areas below canopies of gasoline service stations, theatres, etc.



PERMAFLECTOR NO. E-225

Application: For uses similar to E-100 and E-200, where an extremely broad distribution is desired. Also a good reflector for indirect lighting applications.



PERMAFLECTOR NO. E-500

Application: A reflector of wide utility. It is used exposed or enclosed in metallic housing for industrial and public space illumination. May be recessed in the ceiling. Excellent for use above skylights.

SELECTION DATA

Bottom Opening: Circular, 8½ in. diameter.

Lamp Size:

100 watt A-23
150 watt A-25
200 watt PS-30

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4). Use with 2¼ in. Holder, Form "S", "L", or "LC".

When Recessed: *In plaster ceiling*—use Plaster Ring No. 55-A with Flush Mounting Ring, No. 55; or Plaster Ring, No. 1-A with Hinged Ceiling Roundel, No. 1-A or Hinged Concentric Louver No. 1-A.

In ceiling not plastered—use Flush Mounting Ring, No. 55; or Hinged Ceiling Roundel No. 1-A; or Hinged Concentric Louver No. 1-A.

Louvers: *For External Mounting*—Nos. EM-55 or EM-55-C.

Bottom Opening: Circular, 9½ in. diameter.

Lamp Size:

150 watt A-25, Adapter compressed.
200 watt PS-30, Adapter extended.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4).

When Recessed: *In plaster ceiling*—use Plaster Ring, No. 54 with Flush Mounting Ring No. 54; or Plaster Ring, No. 6 with Hinged Ceiling Roundel No. 6 or Hinged Concentric Louver No. 6.

In ceiling not plastered—use Flush Mounting Ring, No. 54; or Hinged Ceiling Roundel No. 6; or Hinged Concentric Louver No. 6.

Louvers: *For External Mounting*—Nos. EM-54 or EM-54-C.

For Recessed Mounting—Nos. FM-54, FM-54-C, FEC-200 (use with Flush Mounting Ring, No. 54); or Hinged Concentric Louver, No. 6.

Bottom Opening: Circular, 9½ in. diameter.

Lamp Size:

150 watt A-25, Adapter compressed.
200 watt PS-30, Adapter extended.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4).

When Recessed: *In plaster ceiling*—use Plaster Ring, No. 54 with Flush Mounting Ring, No. 54; or Plaster Ring, No. 6 with Hinged Ceiling Roundel No. 6; or Hinged Concentric Louver No. 6.

In ceiling not plastered—use Flush Mounting Ring, No. 54; or Hinged Ceiling Roundel No. 6; or Hinged Concentric Louver, No. 6.

Louvers: *For External Mounting*—Nos. EM-54 or EM-54-C.

For Recessed Mounting—Nos. FM-54, FM-54-C, FEC-200 (use with Flush Mounting Ring, No. 54); or Hinged Concentric Louver, No. 6.

Bottom Opening: Circular, 11⅞ in. diameter.

Lamp Size:

300 watt PS-35.
500 watt PS-40.

Mounting: May be mounted on Conduit (No. 6, in which case discard Outlet Box Cover).

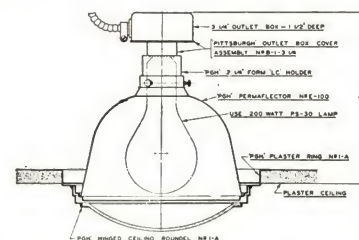
When Recessed: *In plaster ceiling*—use Plaster Ring, No. 555 with Flush Mounting Ring, No. E-500; or Plaster Ring, No. 2-A with Hinged Ceiling Roundel No. 2-A; or Hinged Concentric Louver No. 2-A.

In ceiling not plastered—use Flush Mounting Ring, No. E-500; or Hinged Ceiling Roundel No. 2-A; or Hinged Concentric Louver No. 2-A.

Louvers: *For External Mounting*—Nos. EME-500 or EME-500-C.

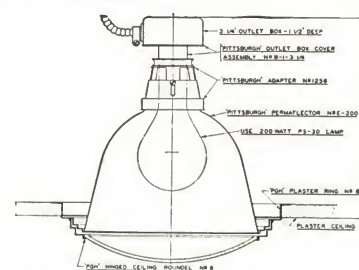
For Recessed Mounting—Nos. FME-500 or FME-500-C, FEC-300 (use with Flush Mounting Ring, No. C-300); or Hinged Concentric Louver, No. 2-A.

INSTALLATION DATA



No. E-100 with Hinged Ceiling Roundel

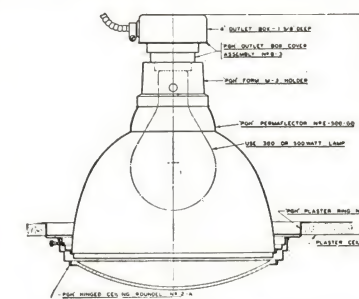
For Recessed Mounting—Nos. FM-55, FM-55-C, FEC-100 (use with Flush Mounting Ring, No. 55); or Hinged Concentric Louver No. 1-A.



No. E-200, Recessed in Ceiling and Equipped with Hinged Ceiling Roundel No. 6

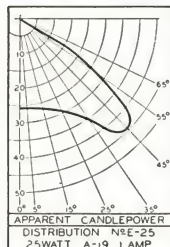
Recessed Lighting

Many merchants favor a clear space free from suspended lighting fixtures. Indirect lighting equipment concealed in or mounted on the store furniture accomplishes this object. Where indirect illumination is not applicable, Permaflexors recessed in the ceiling concealed by glass or louvers are becoming very popular.



No. E-500 with Hinged Ceiling Roundel No. 2-A

PERMAFLECTOR LIGHTING



No. E-25-A

PERMAFLECTOR NO. E-25-A

Application: Distributing type for local lighting purposes.

SELECTION DATA

Dimensions: Opening, 4½ in. diameter; Height, 3½ in.

Lamp Size:
25 watt A-19.
50-60 watt A-21.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip No. KO-1) or Outlet Box Cover Assembly (Nos. B-1-3¼ or B-1-4). Use with 2¼ in. Holder, Form "S", or "L".

When Recessed: *In ceiling not plastered*—use Flush Mounting Ring No. I-25; or Hinged Ceiling Roundel No. 5.

Dimensions: Opening, 5½ in. diameter; Height, 3½ in.

Lamp Size:
25 watt A-19.
50-60 watt A-21.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip No. KO-1) or Outlet Box Cover Assembly (No. B-1-3¼ or B-1-4). Use with 2¼ in. Holder, Form "S", or "L".

When Recessed: *In plaster ceiling*—use Plaster Ring, No. 28 with Flush Mounting Ring, No. 28.

In ceiling not plastered—use

Flush Mounting Ring No. 28.
Louvers: For Recessed Mounting—Nos. FM-28-C (use with Flush Mounting Ring No. 28).

Dimensions: Opening, 6¾ in. diameter; Height, 4¾ in.

Lamp Size:
60 watt A-21.
75 watt A-21.
100 watt A-23.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip No. KO-1) or Outlet Box Cover Assembly (Nos. B-1-3¼ or B-1-4). Use with 2¼ in. Holder, Form "S", "SL", or "L".

When Recessed: *In plaster ceiling*—use Plaster Ring, No. 77 with Flush Mounting Ring, No. 73; or Plaster Ring, No. 4 with Hinged Ceiling Roundel No. 4; or Hinged Concentric Louver No. 4.

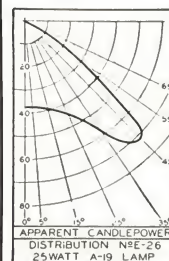
In ceiling not plastered—use

Flush Mounting Ring, No. 73; or Hinged Ceiling Roundel No. 4; or Hinged Concentric Louver No. 4.

Louvers: For External Mounting—Nos. EM-77 or EM-77-C.

For Recessed Mounting—Nos. FM-77, FM-77-C (use with Flush Mounting Ring No. 73); or Hinged Concentric Louver No. 4.

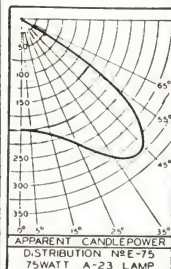
INSTALLATION DATA



No. E-26

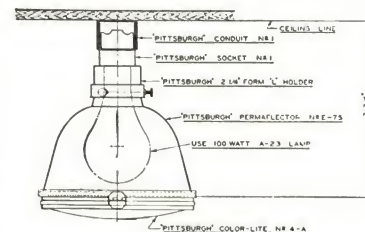
PERMAFLECTOR NO. E-26

Application: A semi-distributing type for local lighting purposes.



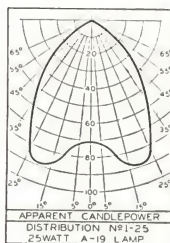
PERMAFLECTOR NO. E-75

Application: A broadly distributing reflector for direct lighting service, where a close spacing of low wattage lamps is employed for relatively low mounting. May also be recessed in ceiling.



E-75 General Arrangement.

No. E-75 General Arrangement with Color-Lite No. 4-A



No. I-25

PERMAFLECTOR NO. I-25

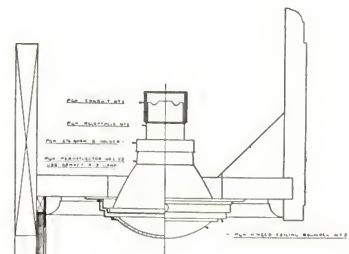
Application: A good indirect cove lighting reflector. May be recessed in ceiling for lighting of backbar in restaurants or beer parlors.

Dimensions: Opening, 4½ in. diameter; Height, 3 in.

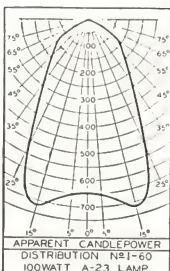
Lamp Size:
25 watt A-19.
40 watt A-19.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip No. KO-1) or Outlet Box Cover Assembly (Nos. B-1-3¼ or B-1-4). Use with 2¼ in. Holder, Form "S", or "SL".

When Recessed: *In ceiling not plastered*—use Flush Mounting Ring, No. I-25; or Hinged Ceiling Roundel No. 5.



No. I-25 General Arrangement For Soda Fountain Back Bar



No. I-60

PERMAFLECTOR NO. I-60

Application: A good indirect cove lighting reflector. Also may be recessed in ceiling. It is supplied with WF-100 interior Flood.

Dimensions: Opening, 6¾ in. diameter; Height, 4¾ in.

Lamp Size:
60 watt A-21.
75 watt A-21.
100 watt A-23.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip No. KO-1) or Outlet Box Cover Assembly (Nos. B-1-3¼ or B-1-4). Use with 2¼ in. Holder, Form "S", "L", or "SL".

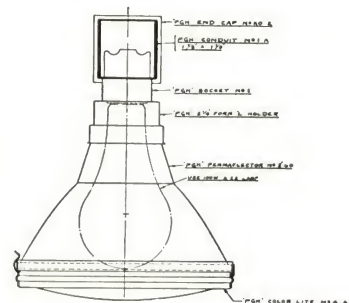
When Recessed: *In plaster ceiling*—use Plaster Ring, No. 77 with Flush Mounting Ring, No. 73; or Plaster Ring, No. 4 with Hinged Ceiling Roundel No. 4; or Hinged Concentric Louver No. 4.

In ceiling not plastered—use

Flush Mounting Ring, No. 73; or Hinged Ceiling Roundel No. 4; or Hinged Concentric Louver No. 4.

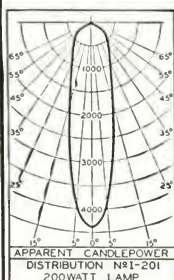
Louvers: For External Mounting—Nos. EM-77 or EM-77-C.

For Recessed Mounting—Nos. FM-77, FM-77-C (use with Flush Mounting Ring, No. 73); or Hinged Concentric Louver, No. 4.



No. I-60 General Arrangement with Color-Lite No. 4-A

EQUIPMENT WITH WIDE VARIETY OF APPLICATION



PERMAFLECTOR NO. I-201-A

Application: Excellent for recessing in ceiling, equipped with flush mounting ring and concentric louver or hinged ceiling roundel. Provides high intensity of illumination over restricted area.



SELECTION DATA

Bottom Opening: Circular, 9 $\frac{7}{8}$ in. diameter.

Lamp Sizes:

150 watt A-25, Adapter compressed.
200 watt PS-30, Adapter extended.

Mounting: May be mounted on Conduit (Nos. 1, 61, or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4).

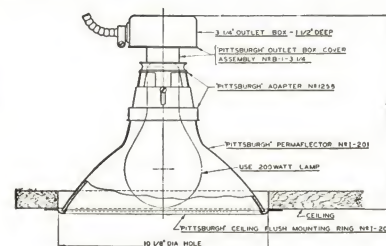
When Recessed: *In plaster ceiling*—use Plaster Ring, No. 54 with Flush Mounting Ring, No. I-201; or Plaster Ring No. 6 with Hinged Ceiling Roundel No. 6 or Hinged Concentric Louver No. 6.

In ceiling not plastered—use Flush Mounting Ring No. I-201; or Hinged Ceiling Roundel No. 6; or Hinged Concentric Louver No. 6.

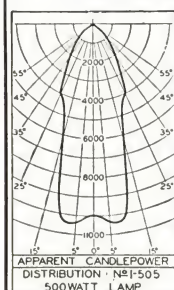
Louvers: *For External Mounting*—Nos. EM-54 or EM-54-C.

For Recessed Mounting—Nos. FM-54, FM-54-C, FEC-200 (use with Flush Mounting Ring, No. I-201); or Hinged Concentric Louver, No. 6.

INSTALLATION DATA



No. I-201-A Recessed in Plaster Ceiling



PERMAFLECTOR NO. I-505

Application: For high bay industrial lighting where the lighting equipment is located 25 ft. or more above the floor and exceptional concentration is required. Very effective for lighting through skylights.



Spacing Recommended: Should not exceed Height above the work plane.

Bottom Opening: Circular, 16 in. diameter.

Lamp Size:

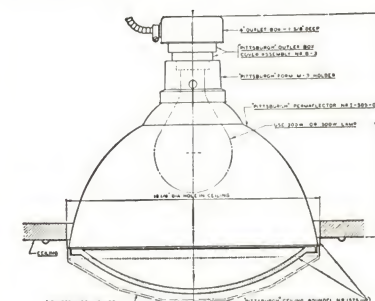
300 watt PS-35.
500 watt PS-40.

Mounting: May be mounted on Conduit (No. 6), in which case, discard Outlet Box Cover.

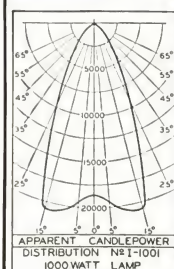
When Recessed: *In plaster ceiling*—use Plaster Ring, No. 3 with Flush Mounting Ring No. I-1000, Hinged Ceiling Roundel No. 3, Hinged Concentric Louver No. 3, Ceiling Roundel No. 1575 or Concentric Louver No. FM-1575-C.

In ceiling not plastered—use Flush Mounting Ring No. I-1000 or Ceiling Roundel No. 1575; or Hinged Ceiling Roundel No. 3; or Hinged Concentric Louver No. 3.

Louvers: *For Recessed Mounting*—Nos. FM-1575-C or Hinged Concentric Louver No. 3.



No. I-505 Recessed in Ceiling with Ceiling Roundel No. 1575 and Guard



PERMAFLECTOR NO. I-1001

Application: Same as I-505. To be used where higher intensity is required. See also I-1000-S and I-1000-RS.



Bottom Opening: Circular, 16 in. diameter.

Lamp Size:

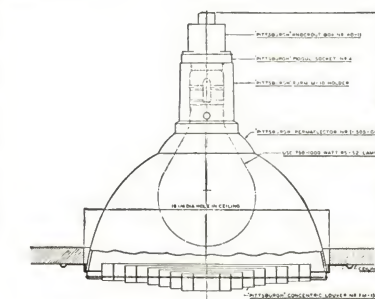
750-1000 watt PS-52.

Mounting: May be mounted on Conduit (No. 6), in which case, discard Outlet Box Cover.

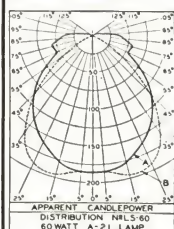
When Recessed: *In plaster ceiling*—use Plaster Ring, No. 3 with Flush Mounting Ring No. I-1000, Hinged Ceiling Roundel No. 3, Hinged Concentric Louver No. 3, Ceiling Roundel No. 1575 or Concentric Louver No. FM-1575-C.

In ceiling not plastered—use Flush Mounting Ring, No. I-1000; or Ceiling Roundel, No. 1575; or Hinged Ceiling Roundel No. 3; or Hinged Concentric Louver No. 3.

Louvers: *For Recessed Mounting*—Nos. FM-1575-C or Hinged Concentric Louver No. 3.



No. I-1001-B Recessed in Ceiling with Louver No. FM-1575-C



PERMAFLECTOR NO. LS-60

Application: For illuminating book stacks of a public library. The reflector opening is elliptical in shape. The long diameter of the ellipse runs crosswise of the aisles between the stacks.



Spacing Recommended: 6 ft. on centers, maximum.

Dimensions: Height, 3 $\frac{7}{8}$ in.; Long Diameter, 7 $\frac{1}{4}$ in.; Short Diameter, 5 $\frac{3}{8}$ in.

Lamp Size:

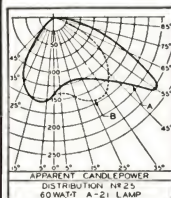
25 watt A-19.
40 watt A-19.
50-60 watt A-21.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4). Use with 2 $\frac{1}{4}$ in. Holder, Form "S", "SL" or "L".

Library Stack Lighting

Most library stack rooms are poorly illuminated with bare lamps spaced at intervals between stacks. The shelving usually runs to the seven foot ceiling. Bare lamps illuminate the upper shelves satisfactorily but fail to provide the necessary illumination to the bottom shelves. An intensive downwardly reflected light is essential to get good illumination on the lowest row of books. However, a portion of the reflector must transmit light through the sides so as to illuminate the uppermost books. In addition, the distribution lengthwise of the stacks must be broader, than crosswise, to permit a spacing of four to six feet between reflectors. Permaflector LS-60 performs all these functions effectively and efficiently.

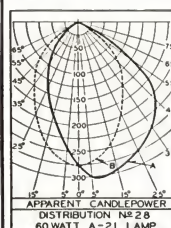
PERMAFLECTOR LIGHTING



No. 25

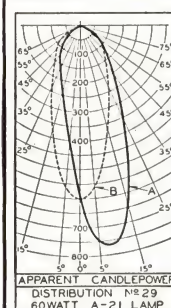
PERMAFLECTOR NO. 25

Application: Very useful for cove lighting; light distribution throws out a maximum at 55° below the zenith, which permits placing cove close to ceiling.



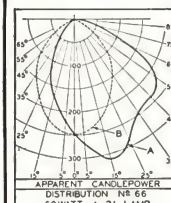
PERMAFLECTOR NO. 28

Application: For tall and shallow wall display cases. It is concentrating asymmetric distribution; maximum candle-power occurs at 10°. Also useful for lighting bank cages.



PERMAFLECTOR NO. 29

Application: Primarily for tall and shallow wall display cases. Concentrating asymmetric distribution; with maximum candle-power at 15°. Also useful for stock shelves, cove lighting, etc.



PERMAFLECTOR NO. 66

Application: For indirect wall urn and cove lighting. Also a case lighting reflector which may be recessed in a flat ceiling and light up the full height of background. Especially good for lighting walls of a gasoline service station from reflectors recessed in overhanging cornice.

SELECTION DATA

Dimensions: Height, 4 1/4 in.; Width, 4 1/4 in.; Front to back, 4 7/8 in.

Lamp Size:

25 watt A-19.
40 watt A-19.
50-60 watt A-21.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip No. KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4). Use with 2 1/4 in. Holder, Form "S", "SL", or "L".

Dimensions: Height, 3 1/2 in.; Width 4 1/8 in.; Front to back, 4 1 1/8 in.

Lamp Size:

25 watt A-19.
40 watt A-19.
50-60 watt A-21.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip No. KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4). Use with 2 1/4 in. Holder, Form "S", "SL", or "L".

Dimensions: Height, 3 7/8 in.; Opening, 5 1/2 in. diameter.

Lamp Size:

25 watt A-19.
40 watt A-19.
50-60 watt A-21.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip No. KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4). Use with 2 1/4 in. Holder, Form "S", "SL", or "L".

When Recessed: In plaster ceiling—use Plaster Ring, No. 28 with Flush Mounting Ring, No. 28.

In ceiling not plastered—use Flush Mounting Ring, No. 28.

Louvers: For Recessed Mounting—Nos. FM-28-C (use with Flush Mounting Ring, No. 28).

Dimensions: Openings 6 3/4 in. diameter; Height, 3 7/8 in.

Lamp Size:

25 watt A-19.
40 watt A-19.
50-60 watt A-21.

Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip No. KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4). Use with 2 1/4 in. Holder, Form "S", "SL", or "L".

When Recessed: In plaster ceiling—use Plaster Ring, No. 77 with Flush Mounting Ring, No. 73 or Plaster Ring, No. 4 with Hinged Ceiling Roundel No. 4; or Hinged Concentric Louver No. 4.

In ceiling not plastered—use Flush mounting Ring, No. 73; or Hinged Ceiling Roundel No. 4; or Hinged Concentric Louver, No. 4.

Louvers: For External Mounting—Nos. EM-77 or EM-77-C.

For Recessed Mounting—Nos. FM-77, FM-77-C (use with Flush Mounting Ring, No. 73); or Hinged Concentric Louver, No. 4.

Dimensions: Opening, 5 1/2 in. diameter; Height, 4 1/2 in.

Lamp Size:

50-60 watt A-21.

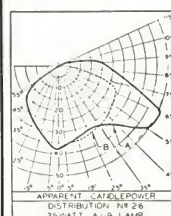
Mounting: May be mounted on Conduit (Nos. 1, 61 or Knockout Strip No. KO-1) or Outlet Box Cover Assembly (Nos. B-1-3/4 or B-1-4). Use with 2 1/4 in. Holder, Form "S".

When Recessed: In plaster ceiling—use Plaster Ring, No. 28 with Flush Mounting Ring, No. 28.

In ceiling not plastered—use Flush Mounting Ring, No. 28.

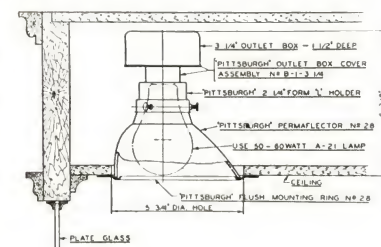
Louvers: For Recessed Mounting—No. FM-28-C (use with Flush Mounting Ring, No. 28).

INSTALLATION DATA

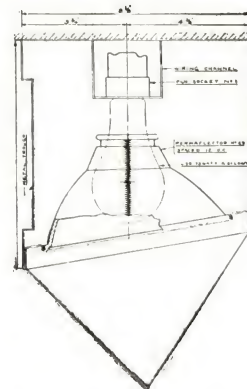


PERMAFLECTOR NO. 26

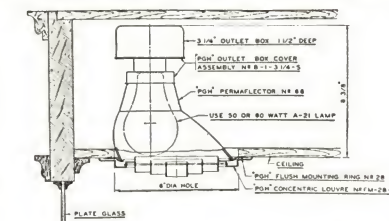
Application: A show case reflector. Also, for small coves, as in residences.



No. 28 Recessed in Ceiling

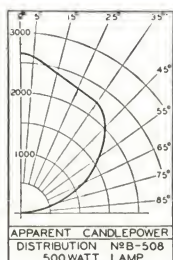


Permaflector No. 29 Built-In Continuous Metal Trough



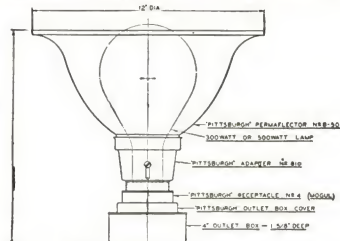
No. 66 Recessed in Ceiling and Equipped with Louver

EQUIPMENT WITH WIDE VARIETY OF APPLICATION



PERMAFLECTOR NO. B-508

Application: An excellent reflector for indirect lighting applications from equipment concealed in urns, boxes, or built in the furniture itself. Likewise a good direct lighting reflector set flush in ceiling.



No. B-508 General Arrangement for Indirect Lighting

SELECTION DATA

Dimensions: Diameter, 12 in.; Height, overall, 11¼ in.

Lamp Size:

300 watt PS-35.

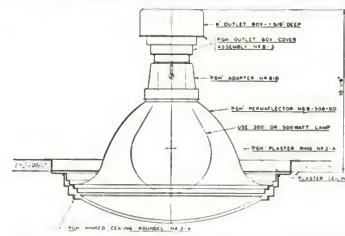
500 watt PS-40.

Direct Mounting Service:

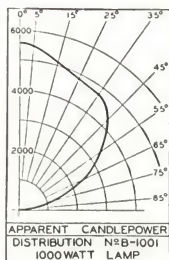
When Recessed: *In plaster ceiling*—use Plaster Ring, No. 555 with Flush Mounting Ring, No. E-500; Plaster Ring, No. 2-A with Hinged Ceiling Roundel No. 2-A or Hinged Concentric Louver No. 2-A.

In ceiling not plastered—use Flush Mounting Ring No. E-500; or Hinged Ceiling Roundel No. 2-A; or Hinged Concentric Louver No. 2-A.

Louvers: *For Recessed Mounting*—Hinged Concentric Louver, No. 2-A.

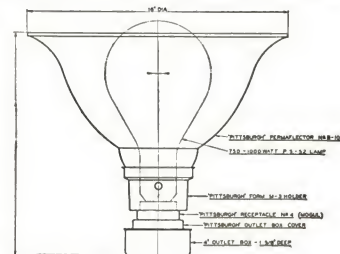


No. B-508 Recessed in Plaster Ceiling with Hinged Ceiling Roundel No. 2-A



PERMAFLECTOR NO. B-1001

Application: An excellent reflector for indirect lighting applications from equipment concealed in urns, boxes, or built in the furniture itself. Likewise a good direct lighting reflector set flush in ceiling.



No. B-1001 General Arrangement for Indirect Lighting

SELECTION DATA

Dimensions: Diameter, 16 in.; Height, overall, 13½ in.

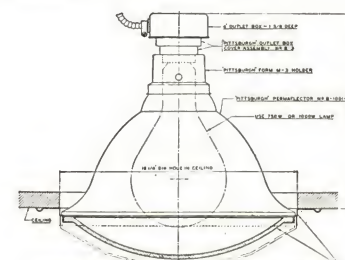
Lamp Size:

750-1000 watt PS-52.

Direct Mounting Service:

When Recessed: *In plaster ceiling*—use Plaster Ring, No. 3 with Flush Mounting Ring, No. I-1000; or with Hinged Ceiling Roundel No. 3, or Ceiling Roundel, No. 1575.

In ceiling not plastered—use Flush Mounting Ring No. I-1000; or Hinged Ceiling Roundel No. 3, or Ceiling Roundel, No. 1575.



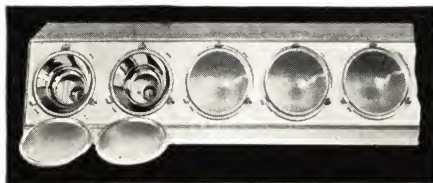
No. B-1001 Direct Lighting, Recessed in Ceiling, Accessible from Above



EFFECTIVE PERMAFLECTOR INSTALLATIONS

Left: People's Natural Gas Company, Pittsburgh. Luminaires No. B-561 and Built-In Units No. FE-100-C set flush in ceiling. **Center:** Marshall Field and Company, Chicago. Note absence of visible fixtures and soft diffusion of light. **Right:** Jerome Wolk and Brothers, Pittsburgh. Modern Permaflector lighting fixtures beautify this modern fur store.

PERMAFLECTOR THEATRE LIGHTING EQUIPMENT



FOOT LIGHT NO. 5-A

Pittsburgh Foot Light No. 5-A is completely enclosed, self-contained, dust-tight. The convex glass roundels are easily removed to renew lamps. Front plate containing roundels is hinged in sections to get at the wiring.

When specifying No. 5-A Pittsburgh Foot Light, architects should detail as indicated, thus requiring the general contractor to build the stage so that the Pittsburgh

Foot Light will accurately fit into place.

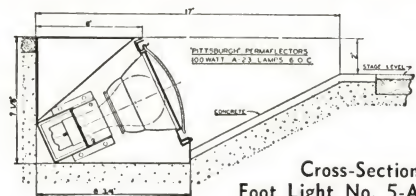
Sold complete with Permaflectors No. C-60 spaced 6 inches on centers and one F-7 Color-Lite for each outlet (Not Wired). Color-Lite No. F-7 available in red, blue, green, amber, moonlight or uncolored stippled.

SELECTION DATA

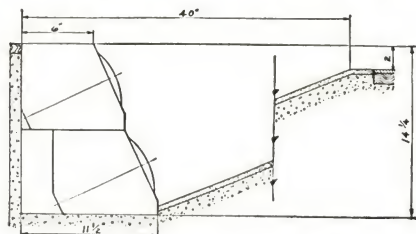
Lamp Size:

Use 100 watt A-23.

Note: As many 10' 0" lengths are bolted together as may be required. When total required length is not evenly divisible by 10' 0", one section is made of special length.

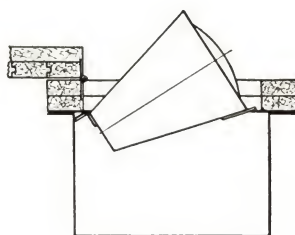


Cross-Section
Foot Light No. 5-A

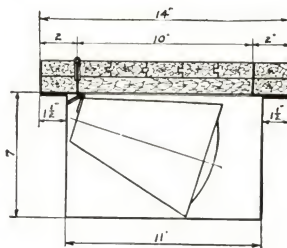


Double Row of Foot Lights No. 5-A

Top row bolted to bottom row internally at intervals.



Open Position



Closed Position

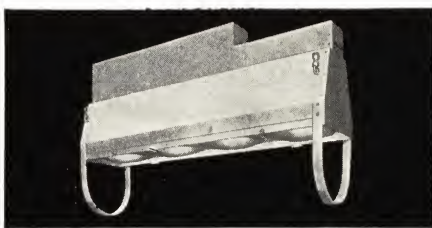
DISAPPEARING FOOT LIGHT NO. 9

A complete self contained foot light, ready to be set in floor of stage and connected up. Made up in 5 ft. x 14 in. standard size. Each foot light contains 9 Permaflectors C-60 spaced 6 in. on centers, equipped with 9 Color-Lite No. F-7, three red, three blue and three uncolored stippled. Mercury switches in each of three circuits extinguish lights when foot light is closed. Wired with three circuits; red, blue and uncolored.

SELECTION DATA

Lamp Size:

Use 100 watt A-23.



BORDER LIGHT NO. 6

A completely enclosed, self-contained unit, built of 20 gauge galvanized iron, aluminum finish. Permaflector C-101 snugly set in metal bottom plate on 9" centers. Glass Color-Lites No. F-2 set in hinged metal plate for easy access to lamps.

Made in standard lengths of 9 feet with 12 outlets 9" on centers. Strap steel guards 36" on centers. Wiring box installed at center or either end as specified. Terminal connection block furnished in wiring box for convenience of installation and maintenance.

Furnished complete as shown, unwired, but equipped with chain for attaching to pipe batten. Chains spaced 36" on centers.

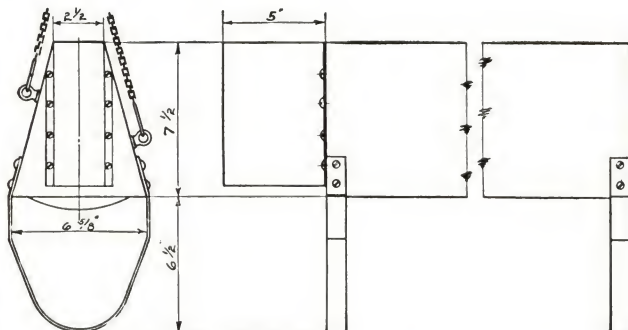
We do not furnish pipe batten, strain insulator, flexible border light cable, lamps or rigging of any kind.

SELECTION DATA

Lamp Size:

Use 200 watt PS-30.

Note: As many standard 9 feet lengths are bolted together as may be required. When total length is not evenly divisible by 9 feet, one section is made special to required dimension.



BORDER LIGHT NO. 7

A completely enclosed, self-contained unit, built of 20 gauge galvanized iron, aluminum external finish. Permaflector No. C-60 snugly set in hinged bottom plate. Glass Color-Lites No. F-7 snap into clips which are tightly compressed by a hinged keeper ring.

Made in standard lengths of 7' 6" with 15 outlets spaced 6" on centers. Wiring box installed at center or either end, as specified. Terminal connection block furnished in wiring box for convenience of installation and maintenance.

Furnished complete as shown, unwired, but equipped with chain for attaching to pipe batten. Chains spaced 36" on centers.

We do not furnish pipe batten, strain insulator, flexible border light cable, lamps or rigging of any kind.

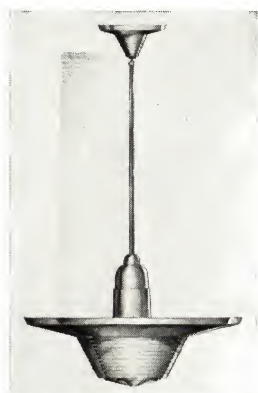
SELECTION DATA

Lamp Size:

Use 100 watt A-23.

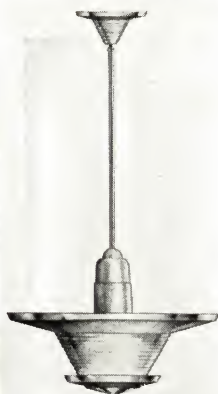
Note: As many standard 7' 6" lengths are bolted together as may be required. When total length is not evenly divisible by 7' 6", one section is made special to required dimension.

PERMAFLECTOR LUSTROLIERS AND LUMINAIRES DIRECT — INDIRECT



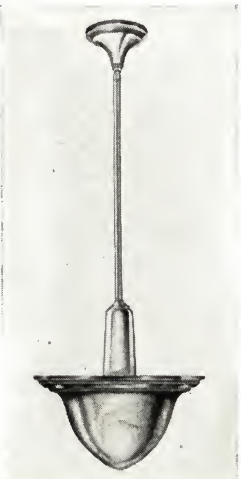
A-581

B-581



R-581

N-581



B-11

B-21

B-51

SELECTION DATA

TOTALLY INDIRECT

Luminaire No. A-581—The Bipost (1000 Watt T-24)
Luminaire No. B-581—The General Service (PS Type)

INDIRECT — ILLUMINATED BOWL

Lustrolier No. R-581—The Bipost 1000 Watt T-24
Lustrolier No. N-581—The General Service (PS Type)

Both designs are distinctive and exemplify the vogue of the shallow bowl. Contain full size Permaflexor with maximum pick-up of light and hence best control and efficiency.

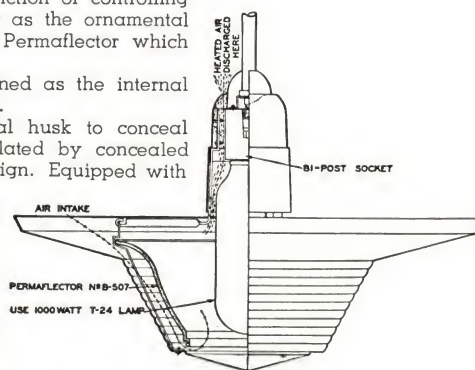
No reliance on bowl to perform the function of controlling light by reflection. The bowl serves only as the ornamental enclosure for the Permaflexor. It is the Permaflexor which controls the light.

Efficiency of the lighting easily maintained as the internal surface of the Permaflexor is smooth glass.

A-581 and R-581 equipped with a dual husk to conceal socket and lamp neck, ingeniously ventilated by concealed means. No exposed vents to mar husk design. Equipped with stem hanger only.

A-581 and R-581 equipped with stranded nickel fixture wire with 40 mil wall asbestos insulation, additionally insulated by refractory tubing at socket, where heat naturally is greatest.

B-581 and N-581 equipped with standard chain hanger, or stem hanger for use with the general service 300-500 watt PS Type inside frosted lamp.



Specifications

Type of Lamp	1000 Watt T-24 Bipost		300-500 Watt PS Type I.F.	
Luminaire or Lustrolier.....	A-581	R-581	B-581	N-581
Bowl, diameter.....	21"	21"	21"	21"
Standard Suspension:				
Top of Bowl to Ceiling.....	36"	36"	30"	30"
Overall Length.....	43"	44"	37"	38"
Permaflexor No.....	B-507	B-507	B-507	B-507
*Standard Finish.....	Roman Silver	Roman Silver	Roman Silver	Roman Silver

*On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (husk finished in polished aluminum).

On special order may be had finished in Lustrotex gun metal, antique bronze or light bronze (husk finished in polished aluminum).

TOTALLY INDIRECT

Luminaire Nos. B-21, B-51 and B-11

Inexpensive but of excellent design. The small diameter of these Luminaires makes them excellent for general office lighting, where many units are used in a large space. This is the fastest seller in the Permaflexor line of Luminaires.

An efficient Permaflexor provides the light control. Standard suspension is the chain hanger, but these Luminaires may also be had with the stem hanger, as illustrated.

Specifications

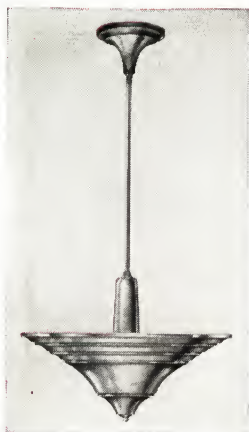
Standard Lamps, Size	200 Watt	300-500 Watt	750-1000 Watt
Luminaire No.....	B-21	B-51	B-11
Diameter of Bowl.....	12"	14 5/8"	19 3/8"
Standard Suspension:			
Top of Bowl to Ceiling.....	30"	30"	36"
Overall Length.....	36 1/4"	37 1/2"	46"
Permaflexor No.....	B-200	B-501	B-1000
*Standard Finish.....	Roman Silver	Roman Silver	Roman Silver

We recommend the use of inside frosted lamps.

*On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (husk finished in polished aluminum).

On special order may be had finished in Lustrotex gun metal, antique bronze or light bronze (husk finished in polished aluminum).

PERMAFLECTOR LUSTROLIERS



Luminaire Nos. B-521 and B-1021

SELECTION DATA

TOTALLY INDIRECT

An indirect Luminaire of large diameter and shallow lines. The decorative bowl appeals to those desiring an ornamental totally indirect Luminaire. When furnished with polished rings it is striking. An efficient Permaflexor provides the light control.

Standard suspension is the chain hanger, but these Luminaires may also be had with the stem hanger, as illustrated.

Specifications

Standard Lamps, Size	300-500 Watt	750-1000 Watt
Luminaire No.....	B-521	B-1021
Diameter of Bowl.....	21"	28"
Standard Suspension:		
Top of Bowl to Ceiling.....	30"	36"
Overall Length.....	38½"	47¼"
Permaflexor No.....	B-501	B-1000
*Standard Finish.....	Roman Silver	Roman Silver

We recommend the use of inside frosted lamps.

*On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (husk finished in polished aluminum).

On special order may be had finished in Lustrotex gun metal, antique bronze or light bronze (husk finished in polished aluminum).

On special order, available with polished husk and polished rim and rings on canopy and bowl. B-521 is available for use with 1000 watt Bipost T-24 lamp. When ordering, call for B-521 *Bipost*.



Luminaire No. B-531

TOTALLY INDIRECT

Designed for those installations where a shallow luminaire is desired, to harmonize with modern interior decorations and furnishings.

Hitherto shallow luminaires meant inefficient lighting because no reflectors were used. Now Permaflexors enclosed in shallow bowls give efficiency combined therewith.

Standard suspension is the chain hanger, but this Luminaire may also be had with the stem hanger, as illustrated.

Specifications

Standard Lamps, Size	300-500 Watt
Luminaire No.....	B-531
Diameter of Bowl.....	25½"
Standard Suspension:	
Top of Bowl to Ceiling.....	30"
Overall Length.....	37¾"
Permaflexor No.....	B-501
*Standard Finish.....	Roman Silver

We recommend the use of inside frosted lamps.

*On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (husk finished in polished aluminum).

On special order may be had finished in Lustrotex gun metal, antique bronze or light bronze (husk finished in polished aluminum).

B-531 is available for use with 1000 watt Bipost T-24 lamp. When ordering, call for B-531 *Bipost*.



Luminaires Nos. B-561 and B-1061

TOTALLY INDIRECT

Designed for those installations where a shallow luminaire is desired, to harmonize with modern interior decorations and furnishings.

Hitherto shallow luminaires meant inefficient lighting because no reflectors were used. Now Permaflexors enclosed in shallow bowls give efficiency combined therewith.

Standard suspension is the chain hanger, but these Luminaires may also be had with the stem hanger, as illustrated.

Specifications

Standard Lamps, Size	300-500 Watt	750-1000 Watt
Luminaire No.....	B-561	B-1061
Diameter of Bowl.....	21"	28"
Standard Suspension:		
Top of Bowl to Ceiling.....	30"	36"
Overall Length.....	37"	45"
Permaflexor No.....	B-501	B-1000
*Standard Finish.....	Roman Silver	Roman Silver

We recommend the use of inside frosted lamps.

*On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (husk finished in polished aluminum).

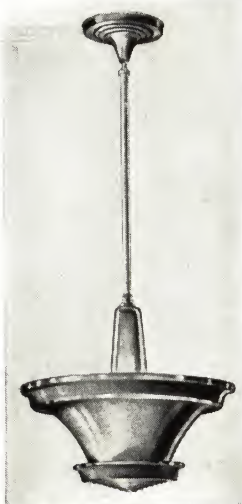
On special order may be had finished in Lustrotex gun metal, antique bronze or light bronze (husk finished in polished aluminum).

B-561 is available for use with 1000 watt Bipost T-24 lamp. When ordering, call for B-561 *Bipost*.

AND LUMINAIRES DIRECT — INDIRECT



Lustrolier Nos. N-22 and N-52



Lustrolier Nos. N-22-C, N-52-C and N-12-C



Lustrolier Nos. N-521 and N-1021

SELECTION DATA

INDIRECT LIGHTING WITH DIRECT COMPONENT

Illuminated Bowl

For private office lighting. Predominantly indirect but a minor portion of the light is directed downward through an etched glass disc. This builds up a very high intensity over the limited area of a desk placed below the Lustrolier, without glare. This direct component may be given a daylight value through the use of the daylight Color-Lite.

An efficient Permaflexor provides the light control.

Standard suspension is the chain hanger, as illustrated, but these Lustroliers may also be had with the stem hanger.

Specifications

Standard Lamps, Size	200 Watt	300-500 Watt
Lustrolier No.....	N-22	N-52
Direct component transmitted through.....	Etched Glass Disc	Etched Glass Disc
Diameter of Bowl.....	15"	18"
Standard Suspension:		
Top of Bowl to Ceiling.....	30"	30"
Overall Length.....	36½"	38"
Permaflexor No.....	B-207	B-507
*Standard Finish.....	Roman Silver	Roman Silver
Daylight Lighting For Direct Component		
Use Color-Lite (optional) No.....	F-12 DB	F-7 DB

We recommend the use of inside frosted lamps

*On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (husk finished in polished aluminum).

On special order may be had finished in Lustrotex gun metal, antique bronze or light bronze (husk finished in polished aluminum).

N-52 is available for use with 1000 watt Bipost T-24 lamp. When ordering, call for N-52 Bipost.

INDIRECT LIGHTING WITH DIRECT COMPONENT

Illuminated Bowl

For store lighting. Predominantly indirect but a minor portion of the light is directed downward through the louvered bottom member. Thus in a ladies' garment salesroom a satisfactory intensity of indirect illumination may be generally distributed. However, for examining dark clothes, the customer may stand below a Lustrolier where an increased intensity is available without glare.

An efficient Permaflexor provides the light control.

Standard suspension is the chain hanger, but these Lustroliers may also be had with the stem hanger, as illustrated.

Specifications

Standard Lamps, Size	200 Watt	300-500 Watt	750-1000 Watt
Lustrolier No.....	N-22-C	N-52-C	N-12-C
Direct Component Transmitted Through	Concentric Louvers	Concentric Louvers	Concentric Louvers
Diameter of Upper Bowl.....	15"	18"	24"
Standard Suspension:			
Top of Bowl to Ceiling.....	30"	30"	36"
Overall Length.....	37"	39"	47"
Permaflexor No.....	B-207	B-507	B-1007
*Standard Finish.....	Roman Silver	Roman Silver	Roman Silver
Daylight Lighting for Direct Component			
Use Color-Lite (optional) No.....	F-12 DB	F-7 DB	F-8 DB

We recommend the use of inside frosted lamps.

*On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (husk finished in polished aluminum).

On special order may be had finished in Lustrotex gun metal, antique bronze or light bronze (husk finished in polished aluminum).

Illuminated Bowl

A very attractive Lustrolier for interiors requiring decorative lighting equipment. The illumination of the bowl may be made to harmonize with the color tone of the room by selecting a color lens to accomplish the desired effect.

An efficient Permaflexor provides the light control.

Standard suspension is the chain hanger, as illustrated, but these Lustroliers may also be had with the stem hanger.

Specifications

Standard Lamps, Size	300-500 Watt	750-1000 Watt
Lustrolier No.....	N-521	N-1021
Diameter of Bowl.....	21"	28"
Standard Suspension:		
Top of Bowl to Ceiling.....	30"	36"
Overall Length.....	38½"	47¼"
Permaflexor No.....	B-507	B-1007
*Standard Finish.....	Roman Silver	Roman Silver
Color-Lite (optional) No.....	F-7	F-8

We recommend the use of inside frosted lamps.

*On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (husk finished in polished aluminum).

On special order may be had finished in Lustrotex gun metal, antique bronze or light bronze (husk finished in polished aluminum).

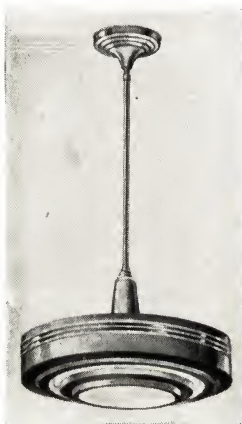
On special order, available with polished husk and polished rim and rings on canopy and bowl.

N-521 is available for use with 1000 watt Bipost T-24 lamp. When ordering, call for N-521 Bipost.

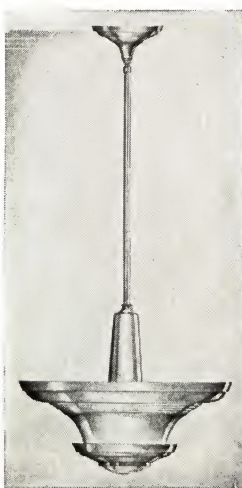
PERMAFLECTOR LUSTROLIERS



Lustrulier Nos. N-561 and N-1061



Lustrulier Nos. N-562 and N-1062



Lustrulier No. N-571

SELECTION DATA

Illuminated Bowl

An exceptionally beautiful shallow bowl Lustrulier of the luminous type. Very striking, especially when color lens is used to "color light" the bowl.

These shallow lines usually are available only in luminaires not equipped with reflectors. Now efficient Permafectors are made available with shallow bowls.

Standard suspension is the chain hanger, but these Lustroliers may also be had with the stem hanger, as illustrated.

Specifications

Standard Lamps, Size	300-500 Watt	750-1000 Watt
Lustrulier No.....	N-561	N-1061
Diameter of Bowl.....	21"	28"
Standard Suspension:		
Top of Bowl to Ceiling.....	30"	36"
Overall Length.....	37"	45"
Permafecter No.....	B-507	B-1007
*Standard Finish.....	Roman Silver	Roman Silver
Color-Lite (optional) No.....	F-7	F-8
(Red, Amber, Green, Light Blue, Royal Blue)		

We recommend the use of inside frosted lamps.

*On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (husk finished in polished aluminum).

On special order may be had finished in Lustrotex gun metal, antique bronze or light bronze (husk finished in polished aluminum).

N-561 is available for use with 1000 watt Bipost T-24 lamp. When ordering, call for N-561 *Bipost*.

INDIRECT LIGHTING WITH DIRECT COMPONENT

Illuminated Bowl

An excellent store lighting Lustrulier. The direct lighting component adds materially to the effective illumination on the merchandise **without glare**. Weiboldt's, River Forest, Illinois, have five hundred of these in service. McCreerys, Pittsburgh, have two hundred in use.

An efficient Permafecter in the upper bowl provides the light control.

Standard suspension is the chain hanger, but these Lustroliers may also be had with the stem hanger, as illustrated.

Specifications

Standard Lamps, Size	300-500 Watt	750-1000 Watt
Lustrulier No.....	N-562	N-1062
Direct Component Transmitted Through.....	Etched Glass Disc	Etched Glass Disc
Diameter of Bowl.....	21"	28"
Standard Suspension:		
Top of Bowl to Ceiling.....	30"	36"
Overall Length.....	37"	45"
Permafecter No.....	B-507	B-1007
*Standard Finish.....	Roman Silver	Roman Silver
Daylight Lighting For Direct Component		
Use Color-Lite (optional) No.....	F-7 DB	F-8 DB

We recommend the use of inside frosted lamps.

*On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (husk finished in polished aluminum).

On special order may be had finished in Lustrotex gun metal, antique bronze or light bronze (husk finished in polished aluminum).

N-562 is available for use with 1000 watt Bipost T-24 lamp. When ordering, call for N-562 *Bipost*.

INDIRECT LIGHTING WITH DIRECT COMPONENT

Illuminated Bowl

Indirect Lighting

Modern in design but not ultra. The black striping on Roman Silver gives it unrivaled charm. Color lighting the bowl adds variety because the entire aspect of a room illuminated with Lustroliers No. N-571 may be changed by a change in Color-Lite.

An efficient Permafecter provides the light control.

Standard suspension is the chain hanger, but these Lustroliers may also be had with the stem hanger, as illustrated.

Specifications

Standard Lamps, Size	300-500 Watt
Lustrulier No.....	N-571
Direct Component Transmitted Through.....	Etched Glass Roundel
Diameter of Bowl.....	18"
Standard Suspension:	
Top of Bowl to Ceiling.....	30"
Overall Length.....	38"
Permafecter No.....	B-507
*Standard Finish.....	Roman Silver
Daylight Lighting For Direct Component	
Use Color-Lite (optional) No.....	F-7 DB

We recommend the use of inside frosted lamps.

*On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (husk finished in polished aluminum).

On special order may be had finished in Lustrotex gun metal, antique bronze or light bronze (husk finished in polished aluminum).

AND LUMINAIRES DIRECT — INDIRECT



Lustrulier Nos. 5100 and 5110



Luminaire Nos. 5000 and 5010



Luminaire Nos. 5025 and 5026

Selection Data

INDIRECT LIGHTING WITH DIRECT COMPONENT Illuminated Bowl

Designed particularly for the lighting of the department store, especially the main floor having a high ceiling. Suitable for installation at the center of a 20 to 24 ft. size of bay.

Has a low direct lighting component transmitted through the 12 in. dia. inverted etched stippled heat-resisting roundel of the bottom member of No. 5100.

No. 5110 is equipped with concentric louver instead of roundel.

An efficient Permaflexor controls the light.

Standard suspension is the chain hanger; may also be had with the stem hanger.

Specifications

Standard Lamps, Size	750-1000 Watt	750-1000 Watt
Lustrulier No.....	5100	5110
Direct Component Transmitted Through.....	Etched Glass Roundel	Concentric Louver
Diameter of Bowl.....	34"	34"
Standard Suspension:		
Top of Bowl to Ceiling.....	48"	48"
Overall Length.....	60"	61"
Permaflexor No.....	B-1007	B-1007
Standard Finish.....	Roman Silver	Roman Silver
Daylight Lighting For Direct Component		
Use Color-Lite (optional) No.....	F-8 DB	F-8 DB

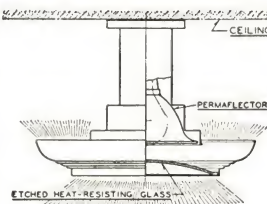
We recommend the use of inside frosted lamps.

*On special order may be had finished in sprayed and baked ivory, seafoam green, azure blue or dove gray (husk finished in polished aluminum).

On special order may be had finished in Lustron gun metal, antique bronze or light bronze (husk finished in polished aluminum).

MINOR INDIRECT COMPONENT Illumination Preponderantly Direct

A new, distinctive and utterly different luminaire for the lighting of department stores. It is predominantly a direct lighting fixture, but it also has an indirect lighting component. With an overall depth of 18 in. it takes away very little from clearance overhead and avoids the oppressiveness of low hanging fixtures.



No. 5000 is equipped with 16 3/4 in. heat resisting roundel, installed convex upward as shown.

No. 5010 is equipped with concentric louver where roundel is shown in the sketch.

An efficient Permaflexor controls the light.

Specifications

Standard Lamps, Size	300-500 Watt	300-500 Watt
Luminaire No.....	5000	5010
Direct Lighting Transmitted Through.....	Etched Glass Roundel	Concentric Louvers
Diameter of Bowl.....	24"	24"
Suspension:		
Top of Bowl to Ceiling.....	14"	14"
Overall Length.....	18"	19"
Permaflexor No.....	B-508-GO	B-508-GO
Standard Finish.....	Roman Silver	Roman Silver

We recommend the use of inside frosted lamps.

ILLUMINATED UPPER BOWLS Direct Illumination—Louvered

Direct lighting well controlled and glareless, is excellent for high interiors such as the main floor of a department store, an auditorium, or convention exhibit hall. This design is for surface mounting. A small portion of the light is used for illuminating the several elements of the fixture.

Concentric louvers mask the reflector and lamp from normal line of sight. At acute angles the louvers have the appearance of luminous glass.

An efficient Permaflexor provides the necessary control of light.

Specifications

Standard Lamps, Size	300-500 Watt	750-1000 Watt*
Luminaire No.....	5025	5026
Dimensions:		
Overall Depth.....	19"	19"
Maximum Diameter.....	28"	28"
Permaflexor No.....	I-505-GO	B-1001-GO
Standard Finish.....	Ivory	Ivory

We recommend the use of inside frosted lamps.

*If 300 or 500 watt PS-Type Lamp is desired use a mogul to mogul socket extension.

PERMAFLECTOR COLOR-LITES

FOR USE IN SHOW WINDOW LIGHTING COVE LIGHTING OTHER INTERIOR SERVICES

The use of Permaflexor Color-Lites has been found to be very satisfactory as an aid in attracting attention as well as creating a pleasing effect for auditorium usage. The Color-Lites shown below are available in a wide range of colors as shown in the tables and may be attached to most types of Permaflexors.

They find wide application in Foot and Border Lights as well as for general auditorium lighting. Color-Lites are particularly well adapted for use with Interior Floods or Interior Spots. For additional data on Permaflexor Color-Lites write direct to the Pittsburgh Reflector Company.

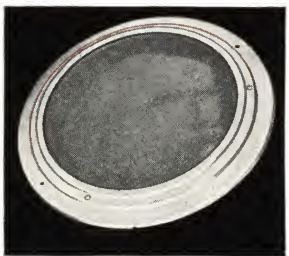
Glass Color-Lites (For External Mounting)



holder; to remove, unhook. Neither lamp nor Permaflexor need be removed.

Consists of retainer frame with coiled springs and one pressed glass roundel in any of the colors listed. A permanent color filter not subject to the faults of gelatines which fade, shrink and wrinkle. To attach merely hook the springs in holes of adapter or

Color-Lite No. 21 (For Flush Mounting)



Consists of frame which may be attached to flush mounting ring by means of knurled head screws, and one pressed glass roundel in any of the colors listed. These Color-Lites equipped with uncolored stippled roundel, used with flush mounted reflectors, makes an inexpensive substitute for hinged ceiling roundels.

Color-Lite No. 4-A (Glass)



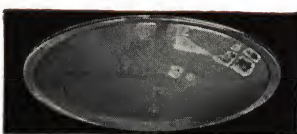
Colored roundel is fastened in cover ring by a split wire ring which fits in a groove in the color rim. Diameter 6 3/4 in.

An improved design of Color-Lite. For use with Permaflexors Nos. 29, 73, P-75-A, P-151, P-101, P-201, E-75, I-60, Interior Flood No. WF-100. It consists of a split ring which closely fits around the rim of Permaflexor. The colored glass roundel sets in frame hinged to the aforementioned split ring. A spring clasp holds the cover closed.

Color-Lite No. 4-ADB (Glass)

Same as Color-Lite No. 4-A except it is equipped with inside stippled daylight glass roundel.

Color-Lite F Series



Pressed glass roundels for use with floodlights, Lustroliers, Color-Lite frames and other colored lighting applications. When used in floodlight, roundel shall be installed inside under protection of heat resisting glass cover.

Glass Color-Lites (For External Mounting)

Color-Lite No.	Diameter of frame in.	Diameter of Roundel only in.	Color		
2	10 1/8	9 1/8	Red	Green	
6	8 5/8	8	Blue	Moonlight	
16	7 1/4	6 1/2	Amber	Uncolored	Stippled
2-DB	10 1/8	9 1/8	Daylight		
6-DB	8 5/8	8			
10-DB	11 3/4	10 3/4			
12-ADB	4 3/4	4 3/8			
16-DB	7 1/4	6 1/2			
8	13 5/8	13	Red	Green	
10	11 3/4	10 3/4	Blue	Amber	
12-A	4 3/4	4 3/8		Uncolored	Stippled
14-A	12 3/4	11 1/4			

Glass Color-Lites (For Flush Mounting)

Color-Lite No.	Diameter in.	Diameter of Roundel only in.	Color		
21	11 7/8	9 1/8	Red	Amber	
61	10 3/8	8	Blue	Moonlight	
			Green	Uncolored	Stippled
21-DB	11 7/8	9 1/8	Daylight		
61-DB	10 3/8	8			

Color-Lites F Series

Color-Lite No.	Diameter in.	Color		
F-1	10 3/8	Red	Green	
F-10	10 3/4	Blue	Amber	
F-11	11 1/4			
F-12	4 3/8			
F-13	13			
F-2	8	Red	Green	
F-4	9 7/8	Blue	Amber	
F-5	12		Moonlight	
F-7	5 1/2			
F-8	6 1/2			
F-9	8 3/8	Red	Green	
		Blue	Amber	
			Light Blue	
F-2DB	8	Daylight		
F-4DB	9 7/8			
F-8DB	6 1/2			
F-10DB	10 3/4			
F-12DB	4 3/8			

PERMAFLECTOR ACCESSORIES FOR RECESSED INSTALLATIONS

Completing the Permaflexor Line

On this and the following pages will be found most of the available fittings and accessories to round out the Permaflexor line of lighting equipment. All of the variations and available models are not shown, but you will find that Permaflexor offers the most flexible line with which to handle every form of recessed

or conventional installation. Additional data on any or all of the accessories shown here may be obtained by writing direct to the Pittsburgh Reflector Company, or to any of our factory representatives (see back cover).



Parallel



Egg Crate



Concentric



Eccentric



Hinged Ceiling Roundel



Ceiling Roundel No. 1575

Permaflexor Louvers

For Flush Mounting Service—These louvers are used for concealing reflectors and lamps of recessed equipment. They attach to flush mounting ring. Under each reflector we advise what louvers may be used therewith.

For External Mounting Service—These louvers are used for concealing reflecting surfaces and lamps of exposed equipment. They attach by means of coiled springs similar to color-lites.

For Flush Mounting

For External Mounting

CONCENTRIC			CONCENTRIC	
Louver No.	Frame Dia.	For use With Flush Ring No.	Louver No.	Frame Dia.
FM-28-C	7 1/4"	28	EM-54-C	10 1/4"
FM-54-C	11 3/4"	54, C-201	EM-55-C	8 3/4"
		I-201	EM-77-C	7 1/4"
FM-55-C	10 1/4"	55, C-100	EM-555-C	13 3/4"
FM-77-C	9"	73	EME-500-C	12 1/8"
FM-555-C	14 1/4"	555		
FM-1575-C	19 1/2"	None Required		
FME-500-C	14 1/4"	E-500, C-300		
ECCENTRIC			ECCENTRIC	
FM-77-CA	9"	73	EM-77-CA	7 1/4"
FM-88-CA	10 1/4"	55	EM-88-CA	8 3/4"
FM-99-CA	11 3/4"	54	EM-99-CA	10 1/4"
PARALLEL			PARALLEL	
FM-54	11 3/4"	54, C-201	EM-54	10 1/4"
		I-201	FM-55	8 3/4"
FM-55	10 1/4"	55, C-100	EM-77	7 1/4"
FM-77	9"	73	EM-555	13 3/4"
FM-555	14 1/4"	555	EME-500	12 1/8"
FME-500	14 1/4"	E-500, C-300		
EGG CRATE				
FEC-100	10 1/4"	55, C-100		
FEC-200	11 3/4"	54, C-201		
		I-201		
FEC-300	14 1/4"	E-500, C-300		



Hinged Concentric Louver

Hinged Concentric Louver No.	Overall Frame Dia.
1-A	10 1/8"
2-A	15"
3	19 1/2"
4	9"
6	12"

Hinged Concentric Louvers—These are the same and serve the same purpose as hinged roundels. In place of stippled glass roundel, they are equipped with concentric louvers set in the hinged member. The louvers are luminous by reflected light and are frequently preferred over other types.

Roundels

Hinged Ceiling Roundels—Used for recessed lighting equipment, where it is desired to completely conceal the reflector and lamp. Hinged member contains stippled colorless roundel, which effectively conceals lamp and reflector, but does not materially alter the character of the light distribution from the reflector. The ceiling flange may be attached directly to the ceiling or to the plaster ring in the case of plastered ceilings. For gymnasium lighting, handball courts, etc., Hinged Ceiling Roundels No. 1-A, 2-A, 3 and 6 are available equipped with heavy wire guard.

Ceiling Roundel No. 1575—Where lighting is accessible for maintenance from space above ceiling, Permaflexors may be recessed by means of ceiling roundels, not hinged. Ceiling Roundel No. 1575 consists of spun metal rim in which heat resisting colorless stippled roundel is set. For gymnasium use, may be equipped with wire guard as shown. Finished in sprayed and baked aluminum.

Permaflexor Flush Mounting Rings and Plaster Rings

When flush mounting Permaflexors it is necessary that the opening in the ceiling be cut to the proper size. Flush mounting rings, either circular or non-circular may be used to simplify the installation. When Permaflexors are to be set flush in a plastered ceiling, our plaster rings are a great convenience. They make possible a perfectly round finished opening and provide the means of conveniently attaching the flush mounting ring, hinged ceiling roundel, louvers or built-in units.

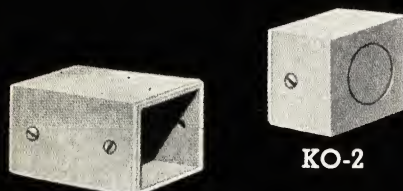
ACCESSORIES AND FITTINGS FOR



No. SS-200

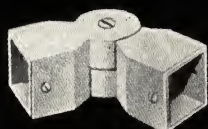


KO-1



KO-3

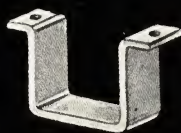
KO-2



KO-4



KO-5



KO-7



KO-6



KO-8



KO-9



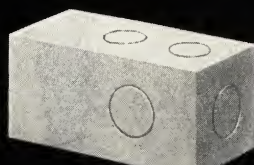
KO-10



KO-11



KO-12



KO-14

Spill Shields for Use with Interior Spots

For the purpose of eliminating the spill light of the Spot Light Reflectors, without interference with the light beam, Spill Shields are used. No. SS-200 illustrated consists of spun metal ring and metal cup supported on tripod as shown. Suspended by means of springs same as Color-Lites. Color-Lite Roundels may also be used.

No. SS-990 consists of spun ring in which is carried a spherical segment which intercepts direct light from the lamp which would otherwise illuminate the wall. Used for cove and wall urn lighting where light on wall is not desired. Does not interfere with reflected light over ceiling.

Knockout Strip and Fittings

Knockout Strips No. KO-1—Furnished only in 10-ft. lengths with Knockouts 3 in. on centers.

End No. KO-2—Permaflexor Knockout End is used at the ends of Knockout Strip.

Coupling No. KO-3—Permaflexor Knockout Coupling is used for joining together lengths of Knockout Strip.

Joint No. KO-4—Permits any angle to be made between adjacent sections of Knockout Strip from 65 to 180 degrees.

Bracket No. KO-5—Permaflexor Knockout Bracket is designed for supporting Knockout Strip from the transom bar, or other vertical surface.

Hanger No. KO-6—Permaflexor Knockout Hanger is used for supporting Knockout Strip at a distance below the ceiling. It is adjustable from 20 to 37 in.

U-Strap No. KO-7—Permaflexor Knockout U-Strap is designed for surface mounting of Knockout Strip.

Socket No. KO-8—A porcelain medium screw socket especially designed for Knockout Strip.

Fitter No. KO-9—Provides shade holder groove for attaching any standard holder.

Hub No. KO-10—Fits into Knockout in face of Strip and is fixed in position by two screws. Permits attachment of 500 watt reflector equipment supported on 1/2 in. conduit stems.

Box No. KO-11—Accommodates Mogul Socket No. 4 and Holders, as used with Permaflexors Nos. 500, 555, E-500, I-505, I-1001, B-508 and B-1001.

Flange No. KO-12—Screws into Hub No. KO-10. Flange provides base for support of Permaflexor Interior Spots and Floods.

Splice Box No. KO-14—Permaflexor Knockout Splice Box is used at the end of Knockout Strip instead of End KO-2, where it is desired to enter with more than one conduit or armored cable. It has removable cover for access to box when splicing wires; has 3/4 in. Knockout in bottom and two 1/2 in. Knockouts in each side.

USE WITH PERMAFLECTORS

"Easy-to-Install" Conduit

"Easy-to-Install" Conduit No. 1—"Easy-to-Install" Conduit No. 1, in combination with Permaflectors constitutes "a lighting system". Conduit, receptacles, holders and Permaflectors, all harmonize in silver coated satin finish. "Easy-to-Install" Conduit avoids necessity of cutting through ceilings or walls for each receptacle and makes it possible to space lamps properly to get even light distribution. **Made to order to fit each job.** Consists of 20-gauge galvanized steel channel fitted with the necessary porcelain receptacles not wired and with or without necessary holders for Permaflectors.

"Easy-to-Install" Conduit No. 2A—Same as No. 1 except equipped with Angle Socket No. 3 and 2½ in. Form "S", "SL" or "L" holder for use with "P" Type Permaflectors.

"Easy-to-Install" Conduit No. 6—Consists of 20-gauge galvanized steel channel, punched to accommodate Mogul Socket No. 4 or 3-Light Mogul Socket No. 5, not wired. For use with Permaflectors Nos. 500, 555, C-300, C-500, I-505 and E-500.

Conduit Fittings

Bracket No. BR-1—For use with Conduit Nos. 1, and 2A; Standard size has vertical member 10 in. long and holds conduit 5½ in. from face of transom bar to center line of conduit.

Ceiling Hangar No. CH-1—For use with Conduit Nos. 1 and 2A; Standard lengths of 6, 8, 10, 12, 14, 16, 18 and 20 in. with special lengths available on order.

Flexible Joints—No. FJ-1 for use with Conduit No. 1 and 2A; No. FJ-6 for use with Conduit No. 6.

U-Straps—No. U-1 for use with Conduit No. 1 and 2A; No. U-6 for use with Conduit No. 6.

End Caps—Free with Conduit.

Adapters and Holders

Adapters No. 1234 and 1256—Designed to be supported from 2¼ in. Form "OB" or "OP" holders, or attached directly without the use of shade holders, to Permaflector "Easy-to-Install" Conduit No. 1, Box Cover Assembly No. B-1-3¼ or B-1-4, or Knockout Strip. The use of the wrong adapter changes the focal center of the lamp in its relation to the reflector, hence alters the distribution of the lighting and lessens the lighting effectiveness. The adapter is part of the reflector and must be used therewith.

Outlet Box Cover Assemblies

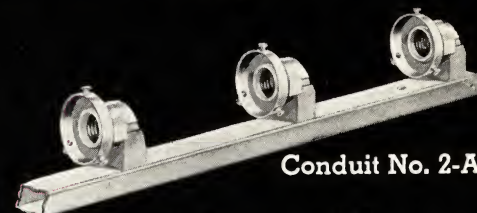
Series B-1—Consists of a 3¼ in. or 4 in. Outlet Box Cover, equipped with "Pittsburgh" Porcelain Socket No. 1 arranged to accommodate "Pittsburgh" Adapters. Fits any standard 3¼ in. or 4 in. Outlet Box having depth of 1½ in. May be used with Adapters Nos. 1234 and 1256, Form "S", "SL", "L", "LC" or "LCA" holders and any of the Permaflectors they are used with.

Series B-2—For jobs where the cove is a circle or ellipse with short radius. In such coves it is not practicable to use "Pittsburgh" Conduit because of the curvature. The Assembly No. B-2-3¼-S and B-2-3¼-L of Outlet Box Cover, Angle Socket and Shade Holder illustrated herewith makes it convenient to use the reflectors No. P-25, P-40, P-75-A, P-76, P-101, P-151, and P-201, in cove lighting work.

It does not matter in what position the Outlet Box is installed, since by means of the slotted center piece the socket may be rotated into alignment with the cove.



Conduit No. 1



Conduit No. 2-A



Bracket



Ceiling Hangar



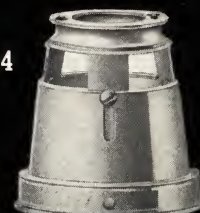
Flexible Joint



Easy to Wire and Install



Compressed



No. 1234

Extended

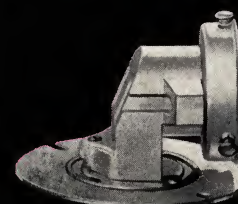


Compressed



No. 1256

Extended



No. B-2-3¼-S



No. B-1-3¼-L



SALES REPRESENTATIVES

BRANCH OFFICES

CHICAGO, ILL.,

R. O. Williams, Mgr., 1158 Merchandise Mart. (Superior 0970).

NEW YORK, N. Y.,

Chas. H. Goddard, Mgr., 1775 Broadway (Circle 7-7055).

SAN FRANCISCO, CALIF.,

H. A. Gardner, Mgr., 807 Flatiron Bldg. (Garfield 1885).

FACTORY REPRESENTATIVES

ATLANTA, GA.,

M. L. Whitman, Bona Allen Building (Walnut 0978).

BALTIMORE, MD.,

W. B. Masland Co., 621 W. North Ave. (La Fayette 4544).

BOSTON, MASS.

Detweiler-Bell Co., 25 South St. (Hancock 6191).

BUFFALO, N. Y.,

H. H. Mallon, 140 Elmwood Ave. (Lincoln 8954).

CLEVELAND, OHIO,

Handel-Davies Co., 202 Chester-Twelfth Bldg. (Main 2684).

DALLAS, TEXAS,

Geo. E. Anderson Co., Sante Fe Bldg. (7-4013).

DENVER, COLORADO,

Mark G. Mueller, 1700—16th St. (Main 1281).

DETROIT, MICHIGAN,

J. Morris Jones, 8531 Orangelawn Ave. (Hogarth 5156).

INDIANAPOLIS, IND.,

Scott-Jaqua Co., Indiana Terminal Warehouse (Riley 7825).

KANSAS CITY, MO.,

Mervin Simons, 613 Manufacturers Exchange Bldg. (Harrison 2768).

LOS ANGELES, CALIF.,

Frank E. Hastings, 810 Transportation Bldg. (Trinity 9801).

MIAMI, FLA.,

Chalmers M. White, Ingraham Bldg. (2-6771).

MINNEAPOLIS, MINN.,

Balch-Kenney Co., 1201 Third St., S. (Atlantic 4484).

NEW ORLEANS, LA.,

Southern Sellers, 918 Union St. (Raymond 1944).

PHILADELPHIA, PA.,

Hopkin Bros., Inc., 116 N. 7th St. (Lombard 8368).

RUTHERFORD, N. J.,

H. G. Otis, 131 Woodward Ave. (Rutherford 2-5767)).

SALT LAKE CITY, UTAH,

Raymond Ackerman, 318 Dooly Block (Wasatch 7282).

SEATTLE, WASH.,

Lyman D. Morgan, 239 Securities Bldg. (Elliott 7500).

ST. LOUIS, MO.,

Wood & Anderson Co., 915 Olive St. (Garfield 2233).

WASHINGTON, D. C.,

Sam Masland, 410 Bond Building (National 3934).

PITTSBURGH REFLECTOR COMPANY

Oliver Building - PITTSBURGH, PA.